Confederation Boulevard

Planning and Design Guidelines

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National Capital Commission
Commission de la capitale nationale

Canada

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National Capital Commission
202–40 Elgin Street, Ottawa, Canada K1P 1C7

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Email: info@ncc-ccn.ca
Fax: 613-239-5063
Telephone: 613-239-5000
Toll-free: 1-800-465-1867
TTY: 613-239-5090
Toll-free TTY: 1-866-661-3530

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Confederation Boulevard Planning and Design Guidelines

Contents

1 Introduction

1.1 Purpose

Confederation Boulevard is a ceremonial route that links major capital sites on both sides of the Ottawa River, distinguished by its streetscape design. It connects and unites the many places that define the history and character of the Capital.

The Confederation Boulevard Planning and Design Guidelines are the primary reference tool for the planning and management of Confederation Boulevard. Its intended users include the National Capital Commission (NCC), its partners, and proponents of projects that affect Confederation Boulevard. The purpose of these planning and design guidelines is to provide policy direction and design guidance to decision-makers and designers, support planning and stewardship, and facilitate the evaluation and approval of design proposals for Confederation Boulevard.

1.2 Scope and Application

The NCC's planning mandate is established under the *National Capital Act*, giving it the unique responsibility to prepare plans for and assist in developing, conserving and improving Canada's Capital Region. This document provides planning and design guidelines specifically tailored to Confederation Boulevard, in support of:

- NCC planning and design staff
- NCC federal land use and design approval staff
- NCC stewardship staff
- NCC's partner agencies[1]
- Other project proponents

1 For the purposes of this document, the term "partner agencies" refers to parliamentary, federal, provincial and municipal organizations, departments and agencies that are stakeholders of Confederation Boulevard.

Figure 1: Map of Confederation Boulevard

Confederation Boulevard is a "Linking Ring" that wraps around Parliament Hill, crossing the Ottawa River twice as it passes through the Ottawa and Gatineau downtown cores. It also includes segments extending south from Confederation Square on Elgin Street, and extending to Rideau Hall along Sussex Drive. Refer to **Figure 1** for a map depicting the extents of Confederation Boulevard.

This document sets out a vision and key principles, identifies components for planning, mobility and the public realm, and provides specific guidelines. These apply to Confederation Boulevard itself, as well as its interface with adjacent land uses. The goal is to guide the evolution of the Boulevard with a planning horizon of 20 years.

2 Planning Background

2.1 Planning Legacy

This section provides a contextual summary of the National Capital Region as a setting for Confederation Boulevard, together with a brief history of the planning and development of this Capital discovery route, and its relationship with other planning documents.

2.1.1 A Place of Beauty and Meaning (time immemorial–19th century)

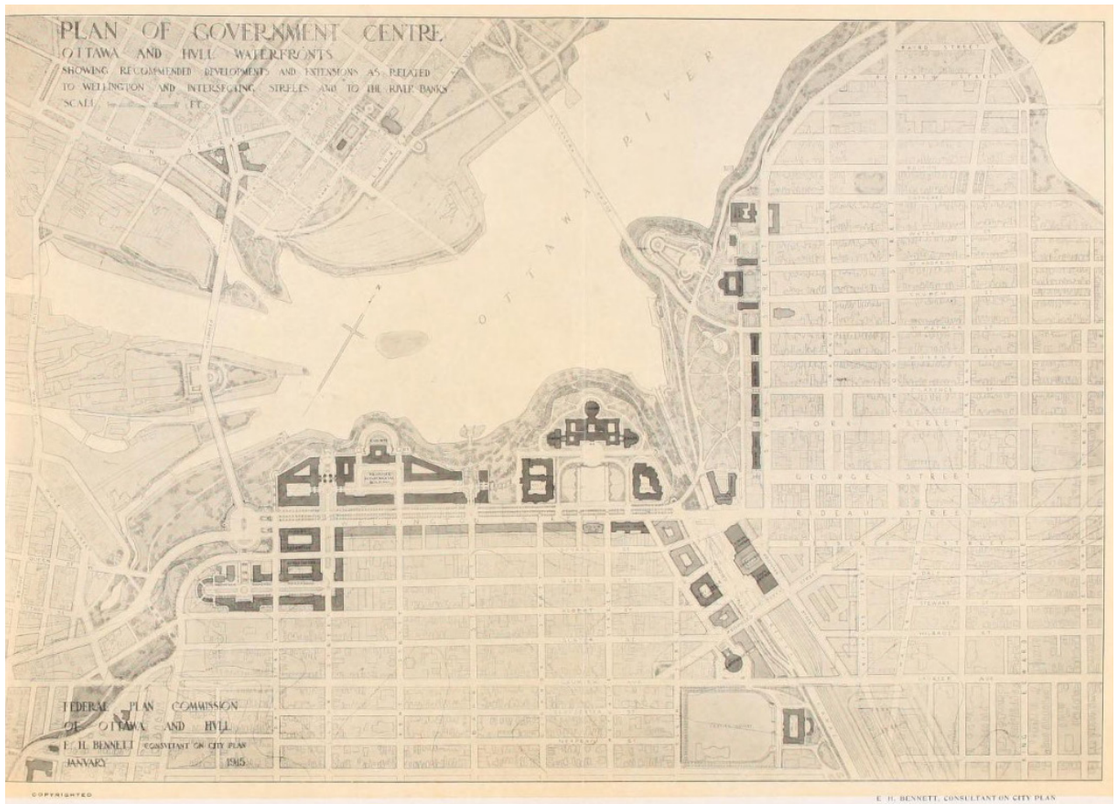
Confederation Boulevard traverses a landscape of spectacular natural beauty and cultural importance within the traditional territory of the Algonquin Anishinabe Nation. Since time immemorial, the confluence of the Ottawa River with its tributaries, the Gatineau River and Rideau River, has remained a place supporting life and facilitating exchange and communications. Early visitors were awed by the picturesque beauty of this northern landscape with its tumultuous waterfalls, rugged cliffs and panoramic views.

By the early 19th century, the area's natural resources and colonial defence drew settlers to the area. In 1800, along the north shore of the Ottawa River, entrepreneur Philemon Wright led the settlement of what is now Gatineau. He pioneered the timber trade, which dominated the regional economy until the early 20th century. Meanwhile, on the river's south shore, Bytown (now Ottawa) was founded when Lieutenant-Colonel John By of the Royal Engineers arrived in 1826 to begin construction of the Rideau Canal, linking the Ottawa River to Lake Ontario. Engineered for the new era of steam-powered vessels, this fortified waterway accelerated economic growth in the fledgling settlement.

Further changes to the landscape ensued throughout the 19th century: industries were established along the rivers' shores to exploit the area's natural resources and powerful currents, bridges were built to span waterways and link communities, and an ever-expanding network of tracks was laid for railways and streetcars.

2.1.2 Capital Foundation (19th century–1950)

The planning ambitions that would ultimately lead to creating Confederation Boulevard began to emerge, along with the young Dominion of Canada's growing national consciousness.



Developed from humble roots as a lumber town, Ottawa was selected as Canada's Capital in 1857 due to its location along the border of Upper Canada and Lower Canada, and the area's balance of people of French and British origin.[2] This brought transformative change; construction on the Parliament Buildings began shortly after, and Rideau Hall was selected as the official residence and workplace of the governor general. The National Capital was the subject of many planning initiatives that sought to imbue it with the sense of presence and dignity deemed appropriate for the federal seat of government amid Canada's emerging sense of national identity. A theme that was common to all the plans was the striking juxtaposition of dignified building ensembles set against, on the one hand, a rugged river landscape, and on the other, the ordered streets and block patterns of the built-up town.

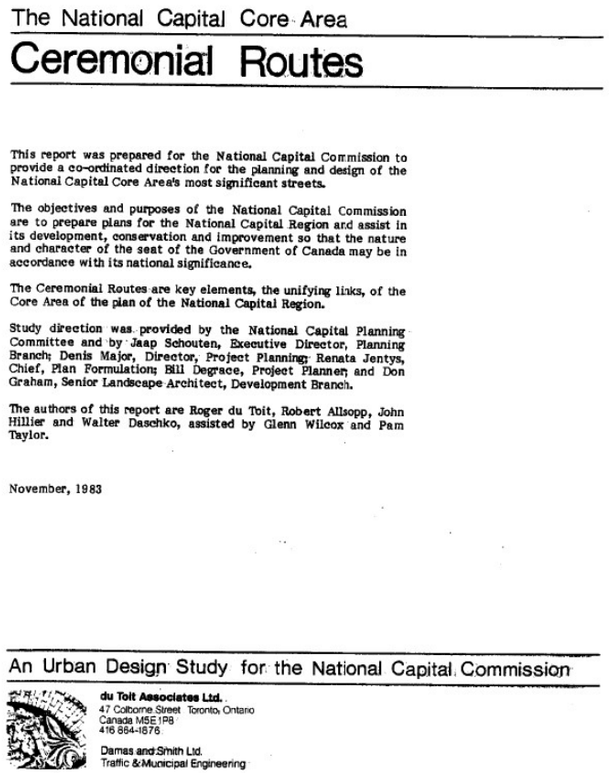
Another important theme was the development of prestigious routes for ceremony and celebration, and along with it, the development of significant connections between Ottawa and Gatineau (formerly Hull).

One early proponent of such a planning scheme to improve the Capital was Lady Aberdeen, vice-regal consort from 1893–1898 during her husband's appointment as governor general of Canada. She envisaged "a beautiful stately drive or esplanade" along Sussex Street (later Drive), from Major's Hill Park to Government House (Rideau Hall), considering the views toward the river. Her vision included extending the drive across the river and back through Hull to the Chaudière Falls.

Other prominent individuals shared this ambition of Capital beautification. In 1899, Sir Wilfrid Laurier's government oversaw the creation of the Ottawa Improvement Commission (OIC), forerunner of today's NCC. Its first planning report, delivered by Frederick Todd in 1903, advocated for a boulevard connecting Rideau Hall and the Parliament Buildings that "would become famous the world over for its picturesque beauty and the magnificence and extent of its views." A decade later, Lady Grey Drive was constructed along the brow overlooking the Ottawa River between Major's Hill Park and just west of the Rideau River.

← Building on these ideas, the Holt Commission Plan of 1915 clearly imagined Wellington Street as a celebrated avenue in front of the federal precinct, coupled with significant connections to Hull. This scheme was further developed in Jacques Greber's 1938–1950 plan, which included a new connection to Hull west of Parliament. Many of these early plans illustrated a major node at the western end of Wellington Street, marking the connection over to Hull.

2 As stated in Governor General Sir Edmund Head's 1857 memorandum to the Queen recommending Ottawa as the site of the Capital.



The National Capital Core Area

Ceremonial Routes

This report was prepared for the National Capital Commission to provide a co-ordinated direction for the planning and design of the National Capital Core Area's most significant streets.

The objectives and purposes of the National Capital Commission are to prepare plans for the National Capital Region and assist in its development, conservation and improvement so that the nature and character of the seat of the Government of Canada may be in accordance with its national significance.

The Ceremonial Routes are key elements, the unifying links, of the Core Area of the plan of the National Capital Region.

Study direction was provided by the National Capital Planning Committee and by Jaap Schouten, Executive Director, Planning Branch; Denis Major, Director, Project Planning; Renata Jentys, Chief, Plan Formulation; Bill Degrace, Project Planner; and Don Graham, Senior Landscape Architect, Development Branch.

The authors of this report are Roger du Toit, Robert Allsopp, John Hillier and Walter Daschko, assisted by Glenn Wilcox and Pam Taylor.

November, 1983

An Urban Design Study for the National Capital Commission

du Toit Associates Ltd.
47 Colborne Street Toronto, Ontario
Canada M5E 1P8
416 864-1676

Damas and Smith Ltd.
Traffic & Municipal Engineering

2.1.3 Boulevard Canada (circa 1969)

Leading up to Canada's 1967 centennial celebrations, the NCC carried out a large-scale restoration program, acquiring numerous properties along Sussex Drive to return them to their Confederation-era appearance as part of a prestige drive and ceremonial route linking Rideau Hall and Parliament Hill. The project became known as "The Mile of History." Riding on a wave of nationalism following 1967, enhanced interest in the National Capital's image and reality led to formally recognizing Boulevard Canada, which encapsulated the concept of one Capital core area linked by a ceremonial circuit.

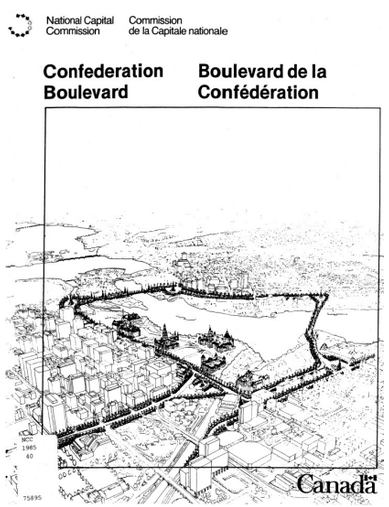
Studies that formed the basis for this concept included the Ottawa Central Area Study of 1969, the National Capital Core Area Plan of 1971 and the Ottawa-Hull Core Area Waterfront Plan of 1981. The 1981 plan clearly set out a vision of a unified Capital Core focused on the Ottawa River, with a ceremonial circuit linking the surrounding terrain and defining a federal precinct with major institutions in a landscape setting.

2.1.4 Ceremonial Routes Report (1983)

After the concept of Boulevard Canada was accepted, a report titled Ceremonial Routes (NCC, 1983) was prepared for the NCC to provide specific planning direction for designing and implementing what would soon become Confederation Boulevard.

← The report had two goals, to celebrate the National Capital's existing ceremonial routes and to support the perception of a combined Ottawa/Gatineau core as the National Capital. To achieve these goals, the report connected principles and objectives that had appeared in various planning initiatives over the decades.

2.1.5 Confederation Boulevard (1985)



As the planning of Confederation Boulevard progressed, a series of design and technical studies was undertaken to explore various components, and to make more concrete the vision set out in the 1983 Ceremonial Routes report. These studies were compiled in a report titled Confederation Boulevard (NCC, 1985).

← After confirming the founding principles, the report featured a demonstration plan that set out in some detail the design concept for the Boulevard. It also included planning and design concepts for lighting, paving, planting and furniture. The construction of Confederation Boulevard was a major undertaking spanning more than 25 years, with the first segment along St. Patrick Street completed in 1987, and the final segment of Sussex Drive completed in 2012. In 2000, Confederation Boulevard was formally inaugurated.

As the Boulevard took shape, changes were made to the design of various components to improve performance and longevity, including shifting from granite pavers to concrete unit pavers, modifying the light fixture globes and using pre-cast concrete and coarse gravel for street trees.

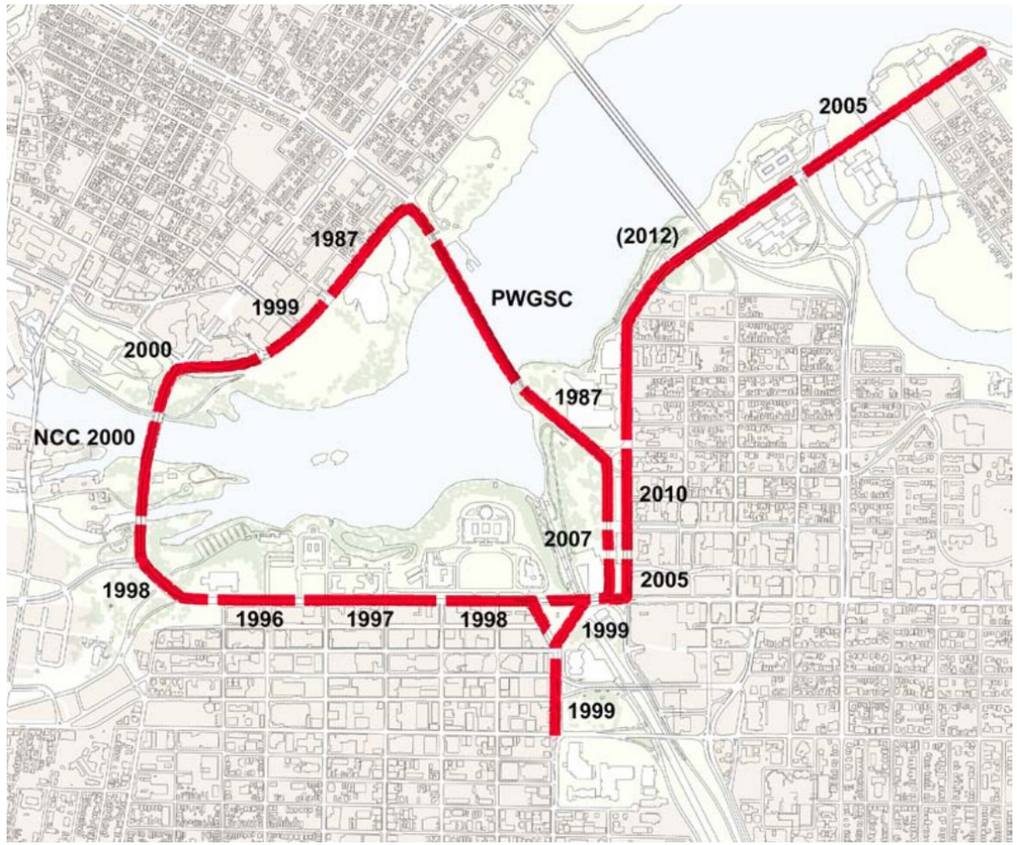
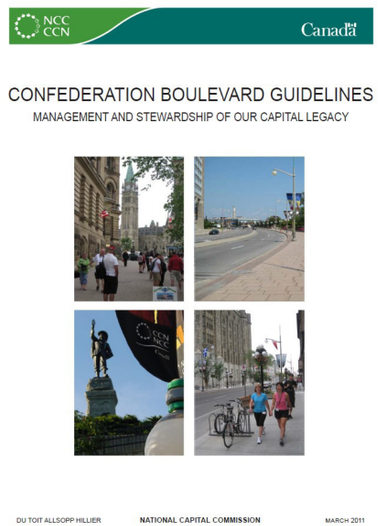


Figure 2: Confederation Boulevard phased implementation

2.1.6 Confederation Boulevard Guidelines (2011)



In 2011, the Confederation Boulevard Guidelines (NCC, 2011) were developed to guide the continuing protection of the Boulevard and ensure that implemented changes supported and reinforced its essential character and purposes.

This document was intended to evolve over time as the emphasis shifted from planning and development, as established in the Ceremonial Routes Report, to maintaining and managing the Boulevard and its major components. Despite its initial objective, the 2011 document has remained static. It is now obsolete, replaced by the new 2025 document.

2.2 Planning Context and Framework

The Confederation Boulevard Planning and Design Guidelines form part of the NCC's Capital Planning Framework for federal lands, which must be considered along with other relevant federal and municipal documents. The Confederation Boulevard Planning and Design Guidelines are a subsector plan under the Plan for Canada's Capital, 2017–2067, and the National Capital Core Area Plan (NCC, 2025). The lands that comprise Confederation Boulevard are also subject to policies set out in the Capital Pathway Strategic Plan (NCC, 2020) as well as other NCC, federal, provincial and municipal plans and policies.

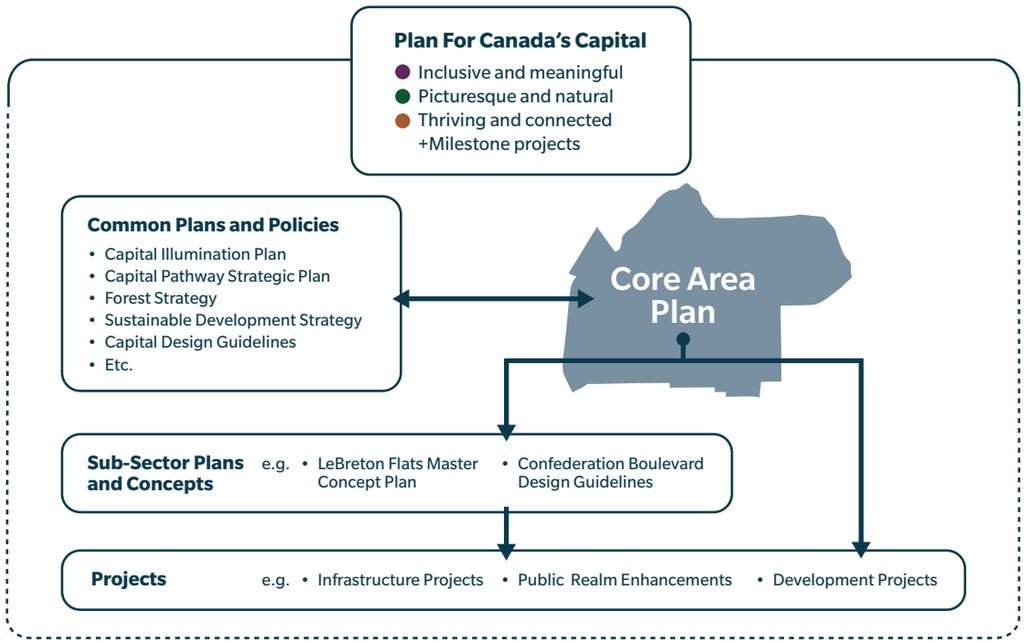
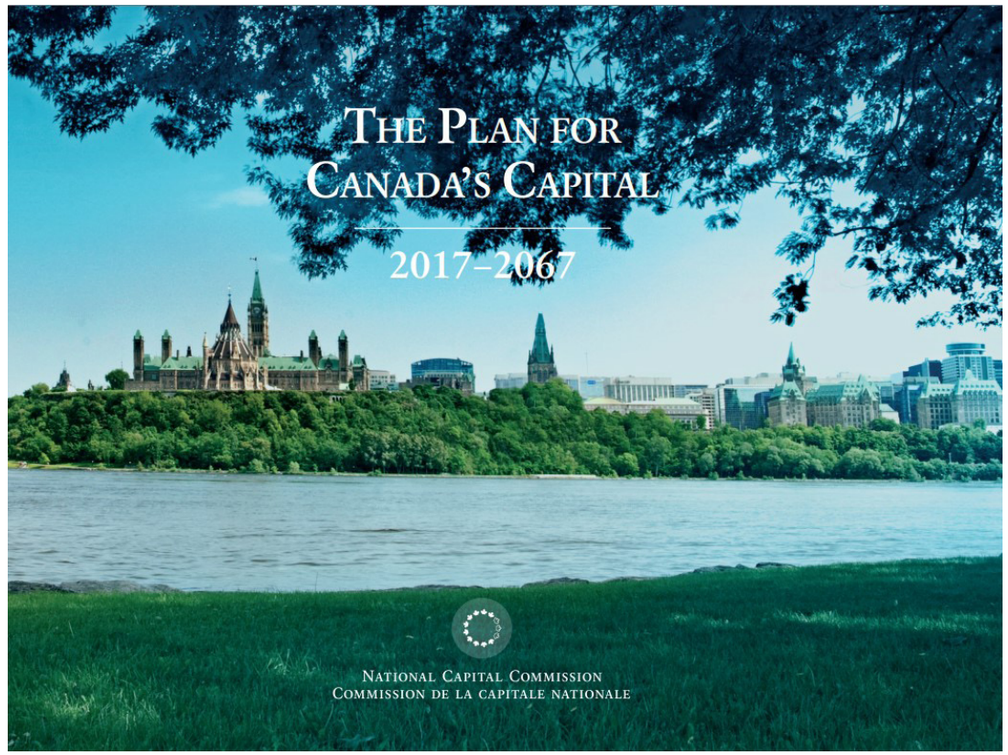


Figure 3: National Capital Commission planning framework

2.2.1 Plan for Canada's Capital, 2017–2067 (2017)

The Plan for Canada's Capital (NCC, 2017) is the long-term master plan for the National Capital Region with a 50-year planning horizon. It identifies a series of fundamental policy directions guiding the evolution of federal lands in the region, building on the seminal plans that have shaped the physical form of the capital.



This master plan identifies Confederation Boulevard as an organizing principle for the Capital's core, with this ceremonial discovery route connecting national institutions, the provinces of Ontario and Quebec, and Parliament. It identifies the reimaging of Confederation Boulevard and its connections as a major milestone project and provides key policy directions to guide the Boulevard over the next 50 years.

2.2.2 National Capital Core Area Plan (2025)

Confederation Boulevard is located within the boundaries of the National Capital Core Area Plan (NCC, 2025). It is an important legacy feature forming the centrepiece of the Capital's ceremonial and symbolic heart, centred around the river basin.

The Core Area Plan responds to the long-term vision and goals established by the Plan for Canada's Capital, 2017–2067. The Confederation Boulevard Planning and Design Guidelines support the Core Area Plan by providing detailed guidance on the Boulevard's policies, design, and management criteria.

Additionally, the Boulevard anchors the Core Area Plan's Capital Streetscape network, consisting of high-quality urban streets and avenues, creating a pleasing urban environment that connects both sides of the Ottawa River and the constellation of national landmarks and institutions throughout the core area.

Figure 4: Core Area Concept Plan (2025)

2.2.3 Capital Pathway Strategic Plan (2020)

The Capital Pathway Strategic Plan (NCC, 2020) is the NCC's main reference tool for planning and managing the Capital Pathway network. It provides policy direction and support for the planning and stewardship of the Capital Pathway network, with specific consideration for the Confederation Boulevard Pathway and its connections.

2.2.4 Other Planning and Policy Documents

Other NCC Plans and Policies

Other NCC plans, policies and projects that will affect lands within and next to Confederation Boulevard include:

- Long-Term Integrated Interprovincial Crossings Plan for the National Capital Region – UPDATE (NCC, 2025)
- Climate Adaptation Plan (NCC, 2024)
- Sustainable Development Strategy (NCC, 2023)
- Accessibility Plan (NCC, 2023)
- Capital Design Guidelines (NCC, 2023)
- Working with Cultural Landscapes: A Guide for the National Capital Region (NCC, 2023)
- Alexandra Bridge Replacement Performance Criteria for Bridge Design (NCC, 2022)
- LeBreton Flats Master Concept Plan (NCC, 2021)
- Capital Illumination Plan (NCC, 2017)
- Confederation Boulevard Sustainable Mobility Study (NCC, 2013)
- Canada's Capital Views Protection (NCC, 2007)

Federal and Provincial Plans and Policies

Other federal and provincial plans and policies affecting lands within and next to Confederation Boulevard include:

- Long Term Vision and Plan for the Parliamentary Precinct (PSPC, 2025)
- Judicial Precinct Master Plan (PSPC, ongoing)
- *Accessible Canada Act*, 2023, c. 8
- Plan d'action en sécurité routière 2023–2028 (Québec, 2023)
- Politique de mobilité durable (Québec, 2018)
- Policy on National Commemorative Monuments on Federal Lands in Canada's Capital Region (Canadian Heritage, 2016)
- Parliamentary Precinct Exterior Lighting Master Plan (PSPC, 2015)
- *Accessibility for Ontarians with Disabilities Act* (Ontario, 2011)

Municipal Plans

The municipal plans and policies that will affect Confederation Boulevard include:

- Plan particulier d'urbanisme (PPU) de l'Île de Hull (Gatineau, 2025)
- Ottawa's Transportation Master Plan (Ottawa, 2025)
- Politique des rues conviviales (Ville de Gatineau, 2021)
- Complementary Study: Public Transit System in Gatineau's West End – Progress report 6 – Final summary and recommendations (STO, 2021)
- ByWard Market Public Realm Master Plan (Ottawa, 2020)
- Sparks Street Public Realm Plan (Ottawa, 2019)
- Plan directeur du réseau cyclable (Ville de Gatineau, 2018)

2.3 Ongoing and Anticipated Major Initiatives

Several major initiatives are progressing through the planning and approval phases while these guidelines are being updated. They will have notable impacts and are explicitly considered in the updated guidelines. They are expected to comply with the updated guidelines.

2.3.1 Block 2 Redevelopment Project (PSPC)

Block 2 is being redeveloped to accommodate core parliamentary functions. The project creates an opportunity to strengthen the connections between Parliament Hill and the urban blocks south of Wellington to create an integrated, safe and welcoming Parliamentary Precinct campus. In 2021, PSPC launched a competition for the redesign of Block 2, the building mass located on the south side of Wellington, bounded by Metcalfe, O'Connor and Sparks streets. The winning proposal presents the vision as well as urban designs for the redevelopment of Block 2 within the Parliamentary Precinct. Construction is expected to be completed in the early 2030s.

Block 2 interacts directly with Confederation Boulevard through an enhanced pedestrian crossing linking it to Parliament Hill.

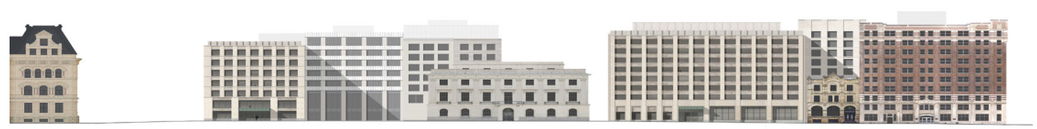


Figure 5: Block 2 concept elevations, subject to change (Zeidler Architecture and David Chipperfield Architects, 2025)

2.3.2 Gatineau–Ottawa Tram Project (STO)

In 2021, the STO released the final summary and recommendations report for the proposed west Gatineau–Ottawa tram system, referred to as TramGO (Tramway Gatineau-Ottawa). The preferred option recommends a surface tramway with two branches connected to a common trunk along Alexandre-Taché, Lucerne, the rail right-of-way, Laurier and the Portage Bridge, and ending in downtown Ottawa. Within Ottawa, the NCC Board of Directors has endorsed the option of a tram alignment along the surface of Wellington Street. Service is expected to begin in the mid-2030s, pending a decision on project implementation in the late 2020s.

The preferred option for TramGO would interact directly with Confederation Boulevard with a tramway running through the Laurier/Portage node, across the Portage Bridge and through the Portage/Wellington node. It could potentially extend along Wellington Street from the Portage Bridge to Elgin Street, with the terminal station located on Elgin Street adjacent to the National War Memorial.

Figure 6: TramGO station rendering (STO, 2021)

2.3.3 Alexandra Bridge Replacement (PSPC and NCC)

In 2019, the Government of Canada mandated PSPC to replace the Alexandra Bridge within 10 years. In October 2024, PSPC, in partnership with the NCC, selected a design inspired by the American eel that pays homage to the Ottawa River's ever-changing dynamic movement. Deconstruction of the existing bridge is expected to begin in 2028.

Alexandra Bridge connects the Ottawa and Gatineau sides of the Ottawa River. This means the design has major implications for Confederation Boulevard.

The new bridge will include two-way cyclist and pedestrian infrastructure to allow for movement along the same side as the current bridge, clearly separating pedestrians from the bikeway. The roadway portion will include two traffic lanes, one in each direction, and is designed to accommodate a potential high-capacity transit system such as a tramway in the future.

Figure 7: Rendering of the selected design concept for the Alexandra Bridge (Technical Advisor for the Alexandra Bridge Replacement Project, 2024)

3 Strategic Framework

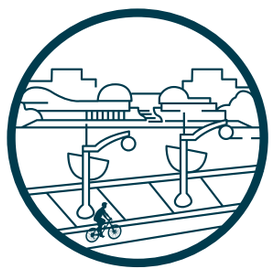
3.1 Vision Statement

Confederation Boulevard is a key feature of the National Capital Core Area. It is a ceremonial and discovery route forming a loop around and along national symbols and federal institutions as a memorable, vibrant public space that fosters sustainable mobility and climate resilience.

It reflects and celebrates Canada's rich history and contemporary diversity in inclusive and meaningful ways.

3.2 Key Principles

Five principles will guide future decisions on Confederation Boulevard:



CREATE A MEMORABLE IMAGE

FOSTER A VIBRANT PUBLIC PLACE

SUPPORT SUSTAINABLE MOBILITY

ADVANCE CLIMATE RESILIENCE

PROMOTE INCLUSIVITY

3.2.1 Create a Memorable Image

Distinct Capital Image

Confederation Boulevard should project a distinguishable and recognizable image that is dignified, unique and lasting. That image should reflect Canadian values, heritage and achievements, and honour the traditional territory of the Algonquin Anishinabe Nation. The consistent application of streetscape components will imbue the Boulevard with a distinct aesthetic character and reinforce the identity and symbolic importance of the route.

Confederation Boulevard should be remarkable and memorable, both day and night, with opportunities for drama and pageantry in the lighting and animation of the Capital.

Cohesive Streetscaping

The streetscape components deployed along the Boulevard, discussed further in **Section 4**, work together to create a coordinated design language of noble materials, custom elements, furnishings, decorations and signature horticultural displays. These must be consistently applied throughout the Boulevard. Deviations from the standards must be explicitly approved by the NCC, as discussed further in **Section 8**.

New emerging design techniques, such as protected intersections and raised pedestrian crossings, are encouraged where they further the goals of these guidelines. However, they must be detailed using the Boulevard's streetscape design language to maintain its cohesive and distinct image.

National Symbols and Placekeeping

The image of Confederation Boulevard should convey the natural and built cultural heritage of the Capital and Canada. Given our country's rich pre- and post-colonial history, its story, and the story of its people, should be legible to visitors to the route. Indigenous placekeeping should be part of the Boulevard's image, recognizing this location's significance for the Algonquin Anishinabe Nation. More broadly, Indigenous themes should be reflected in the public art, furnishings, interpretive elements and horticulture.

High Level of Maintenance

Confederation Boulevard should always be kept in excellent condition. It showcases Canadian design and craftsmanship, and should remain as a point of pride for all of us.

Even with high-quality materials, the Boulevard will require attention to ensure that pavements, plantings, furnishings and other components retain their lustre and continue to fulfill the goals set out for it. To achieve this, a coordinated program of daily and yearly maintenance must be established that reflects a high degree of collaboration among the various jurisdictions that share responsibility for Confederation Boulevard, as outlined in **Section 7** and **Section 8**.

3.2.2 Foster a Vibrant Public Space

Public Spaces

Confederation Boulevard should be a vibrant public space with a range of opportunities for enhanced community, cultural and emotional experiences. The route should integrate a lively, exciting, inclusive and meaningful sequence of public spaces for discovering the Capital and the heritage and culture of Canada. These public spaces should support a range of passive and active recreation, including gathering, contemplation, discovery and ceremony.

Discovery and Connectivity

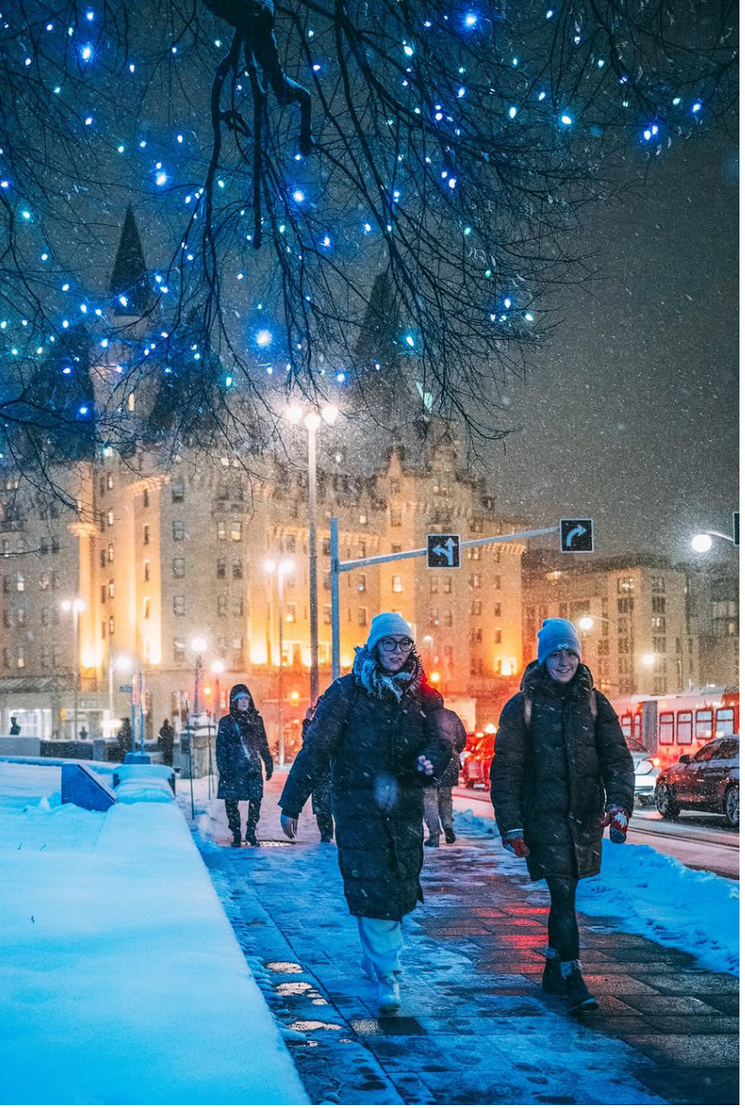
Confederation Boulevard is both a destination for visitors and the connective tissue among a wide range of cultural institutions and landmarks. Because of its inherent quality and proximity to key national institutions, Confederation Boulevard is a most sought-after location for commemorations and public art. The streetscape should intuitively direct visitors through a sequence of public spaces and draw attention to key points of interest along the route, including public art, monuments, interpretation, landmarks, views and museums.

Programming and Ceremonies

The Boulevard comprises a series of public spaces, including nodes, plazas and special areas, that should support a range of uses. The Boulevard is the setting of many important and dignified national symbols, including Canada's national seat of government. Some segments and nodes host important gatherings. These include the annual Canada Day celebration, ceremonies such as the Changing of the Guard, and protests that exercise Canadians' right to peaceful demonstration.

Confederation Boulevard should encourage a lively public environment. In certain areas, as specified in **Section 6**, this could include site animation programs, tourism kiosks, pop-up vendors or food trucks at nodes or on adjacencies.

The Boulevard is also a public place that accommodates activities common to all public places. People of all ages and abilities should be encouraged to enjoy normal activities such as strolling, walking to work, cycling, chatting with friends, sitting in the sun and enjoying the scenery simply because the Boulevard is a public place, and one of the most important in the National Capital.



The Boulevard should be designed with these uses in mind, supporting them through appropriate infrastructure and amenities. For example, areas used for large gatherings could include hostile vehicle mitigation measures to create exclusion zones. Areas specified for animation or vendors could include utility connection points, and areas with views could include benches and shading.

Vibrancy During All Seasons

Seasonal change in the National Capital is both dramatic and inevitable, and Confederation Boulevard should be a vibrant public space at all times of the year. Its image should be coherent and memorable through all seasons. All segments should employ a range of elements that provide visual interest every month of the year. This can include horticultural displays that are choreographed to provide interesting colour, texture and form through spring, summer, fall and winter.

The design of the streetscape, nodes and adjacencies should encourage use through all seasons, including the winter months. The Boulevard should include furnishings and other infrastructure selected to make it welcoming in all weather conditions, and should be maintained throughout the year. Accessibility requirements apply to the Boulevard in all seasons. Seasonal changes must not disproportionately impact people with disabilities.

The winter environment of the Boulevard must be deliberate and curated, celebrating Ottawa and Gatineau as winter cities. Seasonal closure of smaller areas can be considered, but must be detailed with gates and signage in keeping with the Boulevard's level of design. Many options for winter displays and activities can enhance the Boulevard, such as festive lights, warming stations and ice sculptures. These must respect the Boulevard's level of design and maintain the dignity of the Capital.

3.2.3 Support Sustainable Mobility

User Safety

Confederation Boulevard needs to be safe for all users. Future design and management should observe the principles promoted through Vision Zero as well as Crime Prevention Through Environmental Design. Vision Zero's main principle is that no loss of life is acceptable on streets; traffic deaths and severe injuries can and should be prevented. Crime Prevention Through Environmental Design principles concern visibility, surveillance, access control, means of escape, levels of activity and maintenance. Given the prominent location in the National Capital, hostile vehicle mitigation should be considered and added where contextually appropriate to create exclusion zones. Attention should be given to lighting, planting design and programming.

The application of security principles must not create harsh, unwelcoming or exclusionary environments. Security should be seamlessly woven into the design. Where possible, the visibility of security elements should be minimized through strategic placements and design so that they do not oversaturate the streetscape and dominate the image of the public realm.

Pedestrians

On the Boulevard, pedestrians have the highest priority. All sidewalks must be generous and unobstructed, and the Esplanade in particular must be maintained as a broad promenade extending uninterrupted around the Linking Ring. Connections to the wider urban network must be provided, with frequent and short signalized street crossings. Suitable amenities such as benches, shelters, shade and drinking fountains should be provided to meet people's needs and further encourage pedestrian activity.

Additionally, proactive measures should be taken to keep private vehicles out of pedestrian spaces (sidewalks, plazas, etc.) so that pedestrians can move around freely at all times.

Cyclists

On the Boulevard, cyclists have priority after pedestrians. All cycling infrastructure must be segregated and of high quality, protecting cyclists from vehicular traffic and minimizing conflicts with pedestrians. The cycling network must form an uninterrupted circuit around the Linking Ring. Connections to the wider urban cycling network must be provided, with frequent and short signalized and protected street crossings. Suitable amenities, such as bicycle parking and bike-share rental stations, should be provided and located near cycling facilities to encourage both tourists and residents to use the Linking Ring.

Transit

On the Boulevard, the third priority is given to transit. As part of the wider transportation network, Confederation Boulevard must support safe, reliable and comfortable public transit with high-quality transit facilities connecting the Capital's core to the wider transit networks in Ottawa and Gatineau.

Connections and Network

Confederation Boulevard should support enhanced sustainable mobility integration with the wider network through intermodal travel connections. For example, a resident may ride the bus to a stop on the Boulevard near their destination and walk the rest of the way, or a tourist may take a tram to the Boulevard and rent a bike to enjoy the Core Area. Sustainable modes of transportation complement one another, making high-quality connections essential.

Private Vehicles

Confederation Boulevard includes general traffic lanes for private vehicles, which often have a single occupant. In addition to environmental sustainability concerns, the space required to accommodate travel in low-occupancy vehicles is not sustainable in a rapidly growing metropolitan area such as Ottawa–Gatineau.

As cities grow, they shift the split of travel modes toward those with better spatial density. This is especially true for Confederation Boulevard, which cannot be widened, as the impact on important national institutions and streetscapes would be unbearable. Existing general traffic lanes should be reallocated to prioritize walking, cycling and public transit — modes that require significantly less space to move the same number of people, as shown in **Figure 8**.

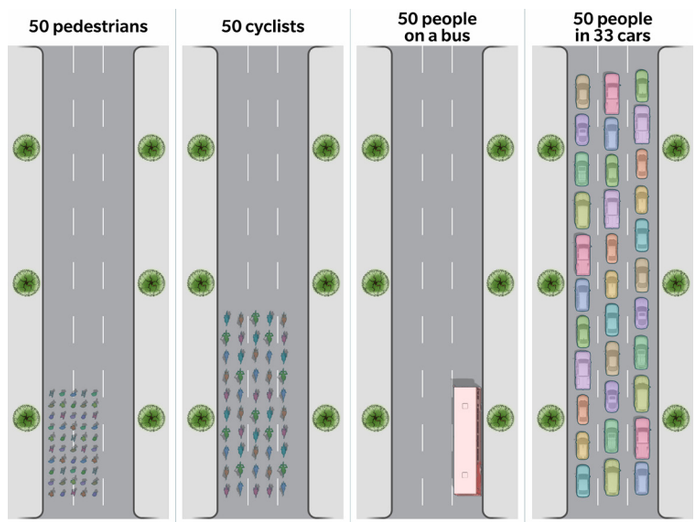


Figure 8: Spatial density of travel modes

The Boulevard's design should encourage a shift toward sustainable mobility, in support of the wider transportation planning efforts of the City of Ottawa and Ville de Gatineau.

For some users, these other modes are not practical. This means that some capacity for private vehicles must remain. High-occupancy vehicle lanes encourage carpooling and can also benefit transit. They should be considered for segments that would otherwise have more than one general-purpose traffic lane in a given direction.

3.2.4 Advance Climate Resilience

Climate Mitigation

Confederation Boulevard will demonstrate leadership in environmental sustainability and stewardship through its design, maintenance and use. This includes reducing greenhouse gas emissions from vehicles and maintenance operations, improving year-round active mobility and creating opportunities for sustainable recreation. Sustainable recreation includes activities such as walking and cycling for leisure purposes, as well as enjoying animation programs, appreciating public art and visiting commemoration sites.

When adding new Boulevard elements with low to moderate power demands such as bus shelters and pedestrian crossover flashing beacons, explore the feasibility of on-site renewable electricity production as an alternative to new connections to the power grid.

The selection and design of materials, furnishings and other elements should be low carbon and must consider their full lifecycle, including longevity, maintenance and end-of-life requirements. Selected materials should be low carbon, locally sourced, and resilient to extreme weather fluctuations and future climate conditions. Materials that are durable and age with grace will limit the need for maintenance and replacement, and can help minimize the Boulevard's environmental impact over time.

Climate Resiliency and Adaptation

It will be important to anticipate the impacts of a changing climate, for example stronger storms, extreme precipitation, floods and droughts, rising average temperatures, and increases in freezing and thawing cycles. For this reason, the Boulevard's design and material selection will take into account climate resiliency and adaptation.

Its design should improve urban biodiversity and enhance access to greenspaces and recreational pathways. Furthermore, the materials and designs along the Boulevard should improve the ecosystem services provided by NCC green spaces, including air quality control, water filtration, climate regulation, carbon storage, wildlife habitat and erosion control.

Refer to the NCC's Climate Adaptation Plan for more details on expected changes and plans to address.

Low-Impact Development

Low-impact development (LID) is a stormwater management approach that aims to mimic the natural water cycle by reducing the total area of impervious surfaces and increasing infiltration of rainwater into the ground. In certain areas, as specified in **Section 6**, LID drainage solutions should be considered as part of capital projects. These can include features such as bioswales that mimic the natural water cycle, reduce runoff volume, improve water quality, enhance ground water recharge and increase green space. Bioswales are also an opportunity to apply Indigenous design principles, including planting selection as well as renaturalizing the water cycle in which rainwater falls, infiltrates the ground and eventually drains into the Kichi Zībī (Ottawa River).

When considering whether to implement bioswales, context will be critical. In the more urban sections, the urbanity of the Boulevard will have precedence over and dictate the design of any LID measures where feasible and context-appropriate.

Visitor Comfort and Safety

Confederation Boulevard should include amenities and infrastructure that respond to changing climate conditions and protect users from increasingly extreme weather conditions. Shade provided through mature canopy growth and shade structures can help lower ground-level temperatures, while drinking fountains and cooling stations can improve visitors' comfort and safety during the warmer months. While extreme cold events are expected to decrease in frequency, they will nevertheless continue to occur and must be accounted for in designs. The Boulevard's design should provide a safe and comfortable environment for visitors through a wide variety of weather conditions.

3.2.5 Promote Inclusivity

Universal Accessibility

The Boulevard's design will be universally accessible to provide comfortable, equitable and barrier-free access and participation for all users, regardless of physical, mobility and cognitive limitations.

A universal design approach does not always address the full range of user experiences. With that in mind, tailored design solutions will be considered to meet a particular group's needs, often to the benefit and convenience of all users. This will require proactively identifying, removing and preventing barriers in the built environments.

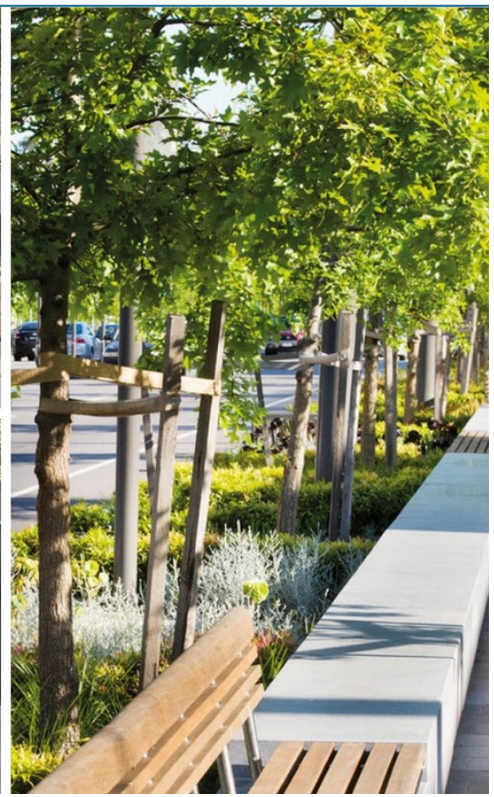
Universal design aims to improve users' experience by considering the diversity of needs, inclusivity and consistency. It promotes an equitable, simple, intuitive and flexible use of a space, while providing perceptible information, accounting for the tolerance for error, requiring low physical effort and providing the appropriate size and space for use.

More guidance on accessibility-related design considerations for the Boulevard is provided in **Section 4.1.1**.

Diverse Commemoration, Interpretation and Public Art

Commemoration, interpretation and public art provides an opportunity to tell the story of Canada, Indigenous peoples and all Canadians. As the premier ceremonial route, Confederation Boulevard already features many notable commemorations, interpretive elements and public art installations, with opportunities for more. The selected installations should reflect the diversity of all Canadian citizens, their lived experiences, their aspirations and their histories.

Any supporting signage or interpretive elements should be accessible for all visitors. Universal accessibility can be made easier by offering content in multiple languages and providing options for individuals who are visually impaired and those who cannot read. To facilitate this extent of accessibility, an online platform should be considered for commemorations and public art.



Reconciliation

In collaboration with Canadian Heritage, the NCC will contribute to Reconciliation efforts through commemorations, interpretation, public art, the use of place names, placemaking and placekeeping — which recognizes the Algonquin Anishinabeg culture and history in the region. The Boulevard offers several opportunities to better recognize the host Algonquin Nation's culture and history. Any installations established in the spirit of Reconciliation, including supporting signage and interpretive elements, will be developed in collaboration with the Algonquin Anishinabe Nation.

3.3 Key Planning Concepts

Ten key planning concepts are fundamental in planning and designing Confederation Boulevard:

1. Ceremonial and Discovery Route
2. The Centrepiece - Linking Ring
3. Capital–City Duality
4. The Grand Esplanade
5. Bridges
6. Nodes and Placemaking
7. Approaches and Connections
8. Cultural Landscapes
9. Views and Vistas
10. Safe System Approach

These planning concepts are detailed in the sections that follow.

3.3.1 Ceremonial and Discovery Route

A ceremonial route is a special urban street that accommodates processions and connects functions related to the country's political, cultural and diplomatic life. In 1903, Ottawa's first ceremonial route was proposed to connect Rideau Hall and Parliament Hill. During the 1960s, the Mile of History ceremonial route was developed along Sussex Drive. In 1970, the concept was further expanded to develop a ceremonial route to physically and symbolically link Ottawa and Gatineau, to create a more unified Capital core. Today, the entire Boulevard serves as the Capital's ceremonial route.

Confederation Boulevard is also Canada's Discovery Route. It surrounds and links a spectacular collection of national institutions, including museums and galleries of superior design that tell Canada's story and showcase its treasures. It serves as the focus for visitors' experience of the Core Area and as a starting point for experiencing the attractions in the National Capital Region.

It also expresses important national and regional values through commemorations, interpretation and public art.

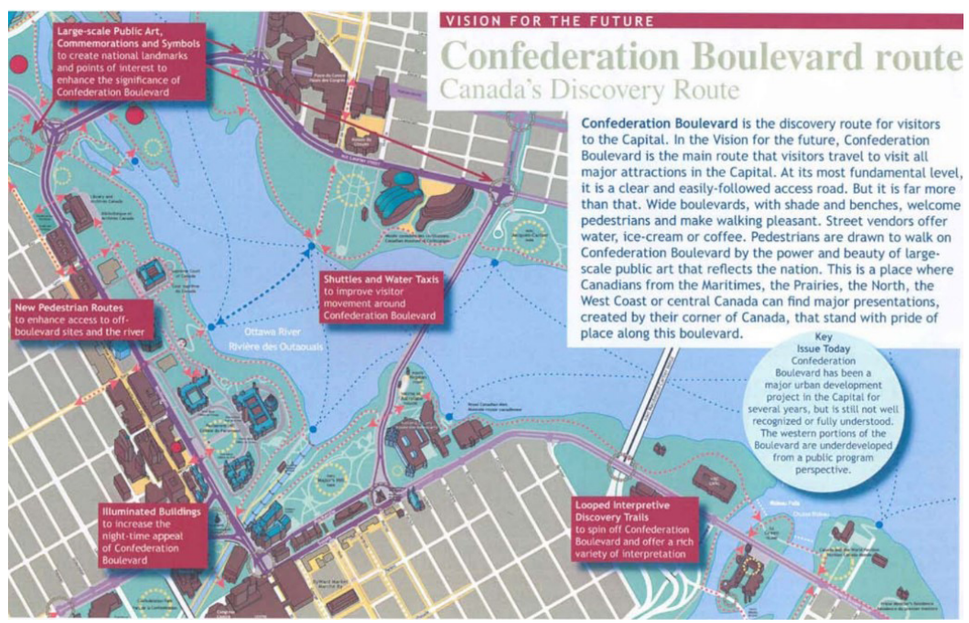


Figure 9: Confederation Boulevard as Canada's discovery route (NCC's public programming strategy, 2005)

In addition, the Boulevard setting serves as a stage for the national events, commemoration, celebrations and everyday activities that bring Canadians together and enable them to experience their Capital in diverse ways. Some of these ceremonies and parades of national significance include:

- Changing the Guard
- Remembrance Day ceremony
- Opening and dissolution of Parliament
- Visits from the Royal Family and foreign dignitaries
- State funerals
- Governor General's installation ceremony
- National commemoration ceremonies

3.3.2 The Centrepiece - Linking Ring

The Linking Ring is the centrepiece of the Core Area, the ceremonial and symbolic heart of the Capital. Centred around the river basin, it connects both sides of the river and links the most important federal sites and symbols encircling Parliament Hill. It comprises the following segments:

- Wellington Street
- The Portage Bridge
- Rue Laurier
- Alexandra Bridge
- Mackenzie Avenue
- Sussex Drive

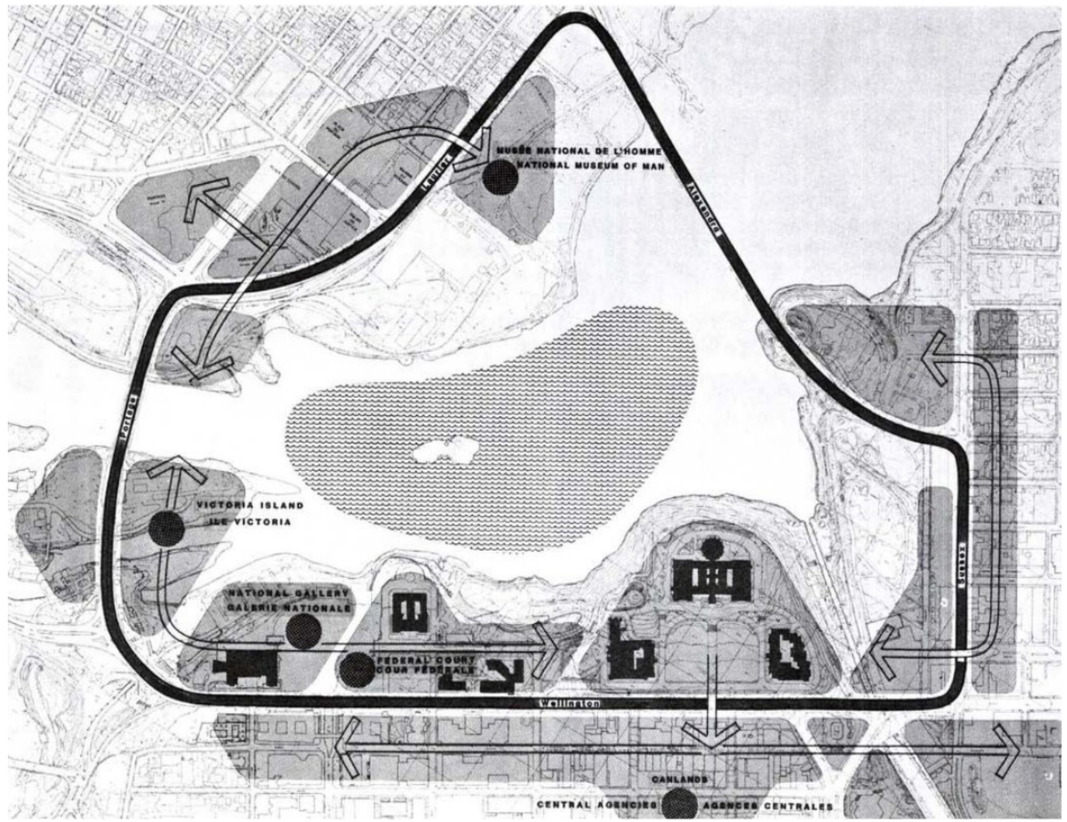


Figure 10: Confederation Boulevard Linking Ring (Ottawa-Hull Core Area Waterfront Plan, 1981)

3.3.3 Capital–City Duality

A central strategy of the Linking Ring is to reinforce the Capital–City Duality concept, which recognizes the duality and synergy between the local and national scales. It presents a more nuanced and expansive interpretation of the historic "Town and Crown" principle, capable of reconciling aspects of form and experience, while retaining the heritage values and character-defining elements and maintaining legibility of the various layers of this cultural landscape.

The Capital layer symbolizes national identity and democracy, reflecting the National Capital's international role, image presence and reputation. This includes monumental architecture, grand public spaces, features and functions of national importance.

The civic layer represents the fine-grained local character and day-to-day life and operations of the two cities and their residents. This aspect reflects the Capital's economic vitality, livability and vibrancy, underpinning and enlivening the Capital layer.

Figure 11: Capital–City Duality (Core Area Plan, 2025)

What was formerly called the "Crown" side of the Boulevard is now referred to as the Inner Ring, and what was formerly called the "Town" side of the Boulevard is now referred to as the Outer Ring. There are different character-defining elements and different design responses for the inner and outer rings. As parliamentary and judicial precincts expand, they are spilling across the Boulevard, with an increasing number of parliamentary and judicial buildings on the Outer Ring. Duality should nevertheless be maintained through enhanced connections to the adjacent cities.

While this duality can pose a tension in design, where the symbolic and functional requirements of the two layers differ, a well-designed vibrant, dynamic space can both attract visitors and serve the local community. Care must be taken to make sure the Boulevard's design respectfully and appropriately serves both sides of the duality.

3.3.4 The Grand Esplanade

A signature element of Confederation Boulevard is the Esplanade, which forms a continuous pedestrian loop along the Inner Ring. The Esplanade provides a generously wide walking experience that is framed by a consistent, recognizable arrangement of lighting, pageantry, wayfinding, plantings and surface treatments.

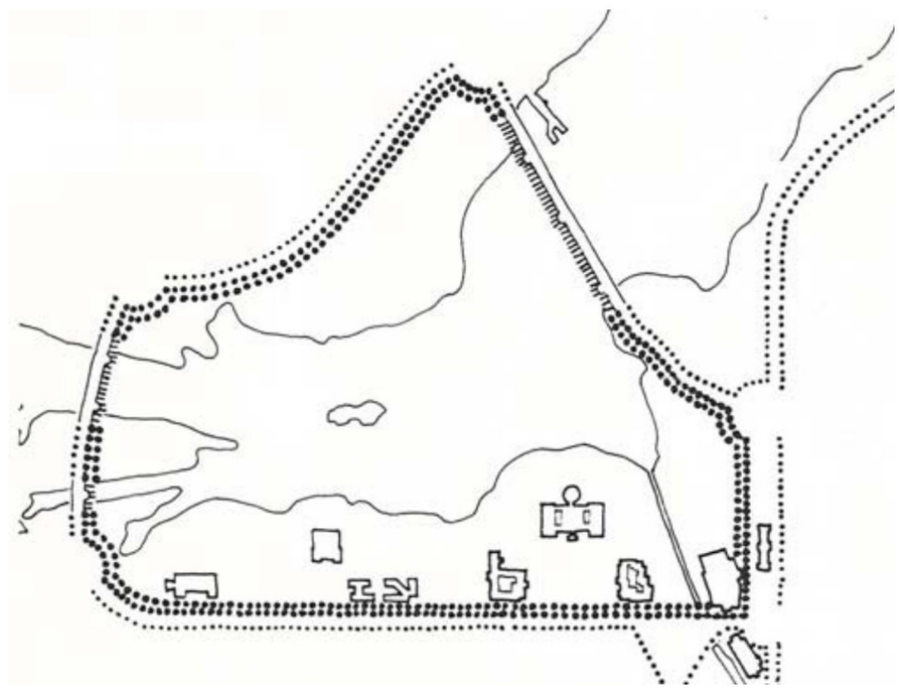


Figure 12: The Grand Esplanade on the inner side of the Linking Ring (Confederation Boulevard Guidelines, 2011)

3.3.5 Bridges

The bridges are a unique part of the Confederation Boulevard experience, with their dramatic views as they cross major waterways and cultural landscapes:

- The Ottawa River, a Canadian Heritage River, is crossed at the Alexandra Bridge and at the Portage Bridge
- The Rideau Canal, a UNESCO World Heritage Site and a National Historic Site of Canada, is crossed at the Plaza Bridge
- The Rideau River, a Canadian Heritage River, is crossed at the Bytown Bridges at Green Island

Approximately 10% (750 metres) of the total length of Confederation Boulevard is on a bridge over water. Bridges also include approaches, which provide views over the river valleys and extend the experience of travelling through a special landscape. Each crossing provides a unique opportunity to shape the experience of Confederation Boulevard for those travelling along it, and offers longer views of the waterways and important capital landmarks and landscapes.

Figure 13: Confederation Boulevard bridges

3.3.6 Nodes and Placemaking

The segments and bridges along Confederation Boulevard are punctuated by a series of nodes that are located at junctures, intersections, transitions and other connection points. Nodes are a means of orientation and a transition within and between segments. Primary Nodes are located at Boulevard entry and turning points. They have been identified as locations for commemorations of national importance, but are not the only ones. Secondary Nodes are the transition points within a segment, offering improved pedestrian crossings and other amenities.

Nodes are ideal for placemaking along Confederation Boulevard, providing benefit to Boulevard users and creating spaces for programming.

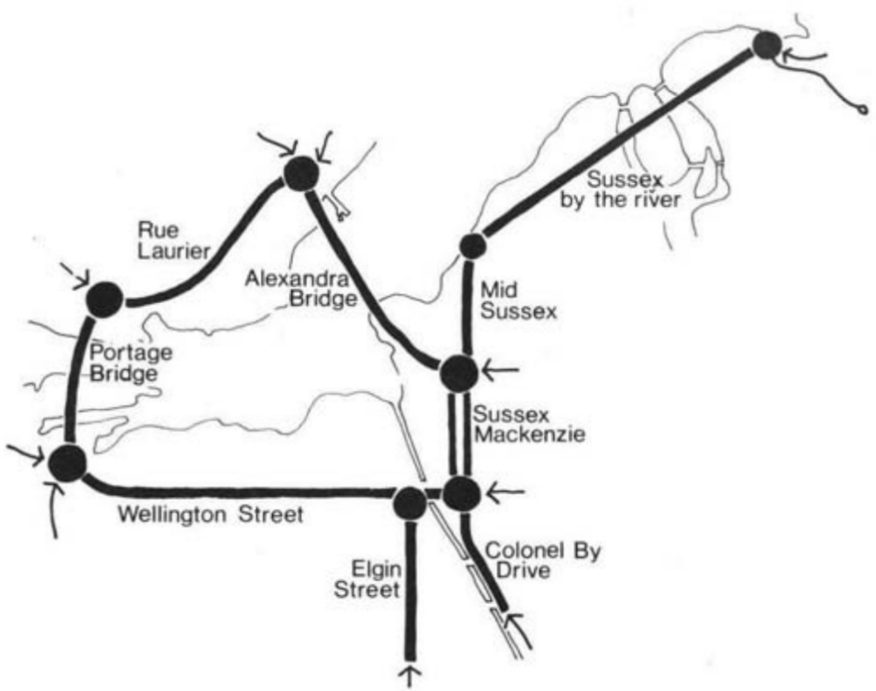


Figure 14: Confederation Boulevard nodes (Confederation Boulevard Guidelines, 2011)

3.3.7 Approaches and Connections

Confederation Boulevard forms part of and is connected to the surrounding Capital Streetscapes network consisting of (**Figure 15**):

- Confederation Boulevard connections
- Capital side streets
- Capital laneways
- Capital parkways
- Capital arrivals
- Urban avenues
- Main streets
- Urban streets

These elements of the Capital Streetscapes connect to the Boulevard, with each fulfilling specific roles and functions.

As part of the Plan for Canada's Capital, 2017-2067, Milestone 6 Confederation Boulevard extensions, the Confederation Boulevard connections represent the first step in this direction. Confederation Boulevard connections include:

- Wellington Street, west of the Portage Bridge/Wellington node to the Kichi Zībī Mīkan
- Rue Laurier, east of the Laurier/Alexandra node to Jacques-Cartier Park
- Rue Laurier, west of the Portage/Laurier node to the Rue Hanson/Alexandre-Taché Boulevard intersection
- Colonel By Drive south, from the Rideau/Sussex node

While formal extensions to the Boulevard are not being made at this time, the potential additions noted in the Plan for Canada's Capital, 2017-2067, Milestone 6 should be reassessed in the future whenever the Confederation Boulevard Design Guidelines are updated.

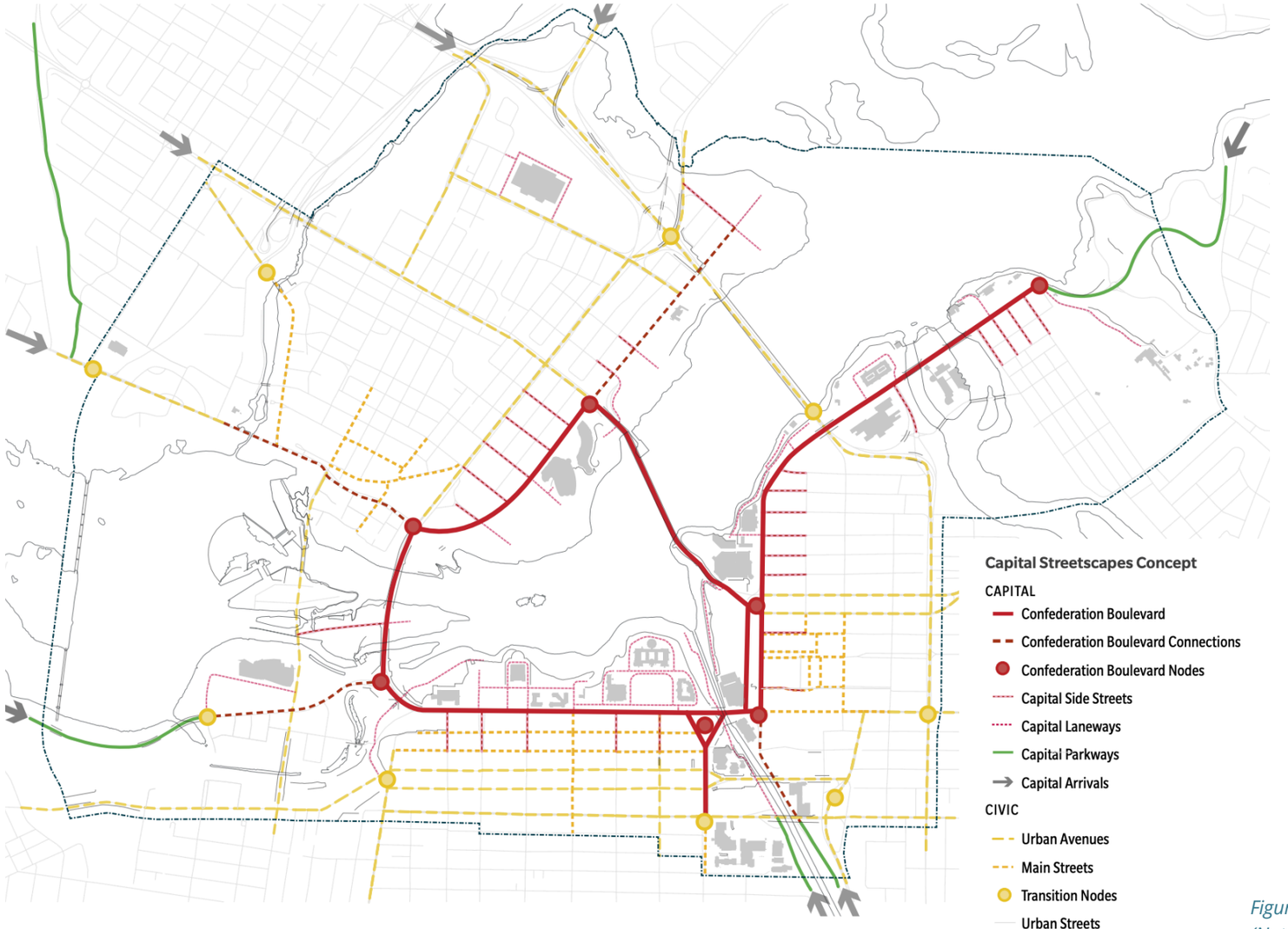


Figure 15: Capital Streetscapes concept (National Capital Core Area Plan, 2025)

3.3.8 Cultural Landscapes

A cultural landscape is a set of ideas and practices embedded in a place. The ideas and practices make it cultural; the place makes it a landscape. This approach is based on the relationship between human interactions and a place's physical features. It brings the ideas and practices that ultimately sustain a place and give it value into the heritage conservation process.

Confederation Boulevard on its own is a cultural landscape. It also provides a way to experience the cultural landscapes it abuts and links.

Confederation Boulevard is a cultural landscape centred on a system of streets and pathways. This system is designed and managed to provide access to, and appreciation of, the Capital's ceremonial core and important national institutions, views, landmarks, historic places and museums.

PSPC is currently assessing the cultural landscape of Wellington Street to identify heritage values and character-defining elements that are to be protected and preserved with future interventions. Cultural landscape assessments should be performed for the rest of the Boulevard's segments and nodes before any major interventions.

3.3.9 Views and Vistas

Throughout Confederation Boulevard, the interaction between the Capital and Civic realms results in dramatic and picturesque views and vistas of national symbols, the Ottawa River and the Gatineau Hills landscape. In some areas, trees and other landscaping features have grown in to obscure important views.

The Boulevard will protect, enhance and reclaim these views and vistas while considering the varying user experiences along the Boulevard, impacted by scale and travel speeds. These views and vistas may feature national symbols and landmarks, as well as the Ottawa River and Gatineau Hills landscapes. For example, trees should be carefully planted to frame rather than obscure views, and should be pruned over their lifecycle to ensure clear sight lines at ground level.

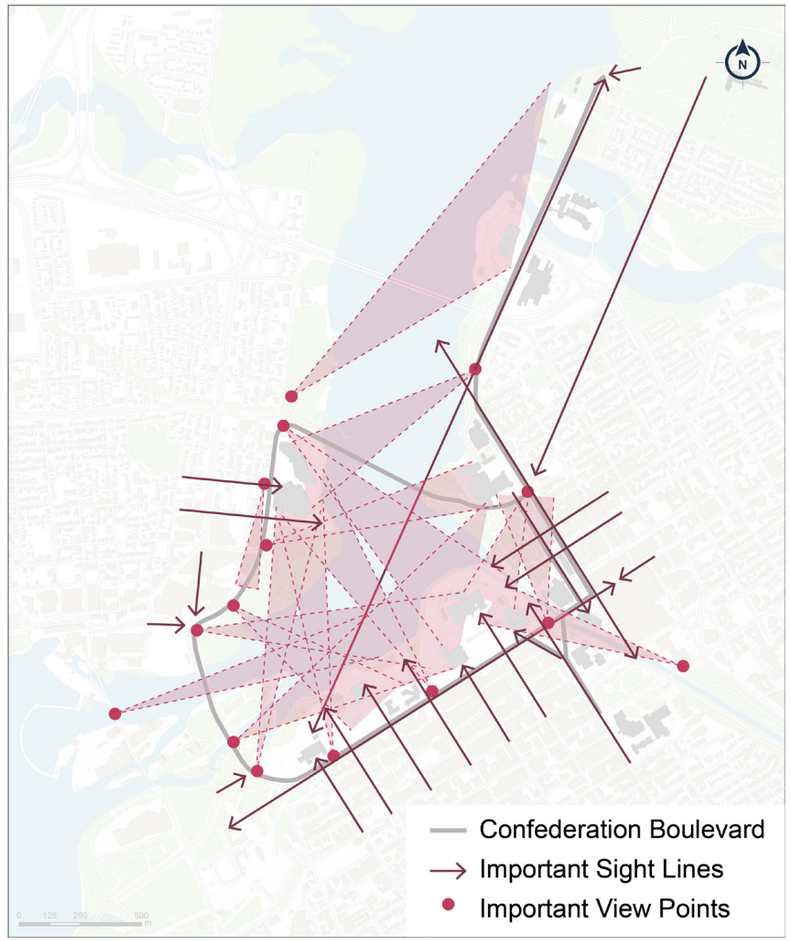


Figure 16: Views and Vistas from Confederation Boulevard

3.3.10 Safe System Approach

Confederation Boulevard should strive to reach Vision Zero, to eliminate all road fatalities and serious injuries. Vision Zero is rooted in the belief that death and serious injuries are unacceptable. All designs should focus on reducing the frequency of death and injuries until they are eliminated, recognizing that this is a very long-term goal that will take continuous effort to attain.

It is achievable through a Safe System Approach,[3] which focuses on improving the safety performance of the transportation system. It is comprehensive, covering not just street design but also land use planning, user behaviour and vehicle design. Principles relevant to the Boulevard's design include:

- People are vulnerable. There are physical limits to human tolerance to crash forces.
- People make mistakes. Designs should accommodate them, considering injury tolerances to prevent serious injuries or death.
- Safety is proactive. Tools are available to identify and mitigate risks before facilities are constructed.
- Overlapping measures are critical. If one element fails, others can continue to provide protection.

3 Transportation Association of Canada, 2023, https://www.tac-atc.ca/wp-content/uploads/prm-vzss-e.pdf

The Boulevard can advance Vision Zero by ensuring that street designs minimize the likelihood of user mistakes and account for user vulnerabilities to reduce the severity of crashes. Specifically:

- Separate different modes to account for varying speeds and vulnerabilities.
- Design streets for safe operating speed to improve crash survivability.
- Design self-explaining streets to improve user compliance.
- Design streets to reduce the consequences of human error, given that humans are fallible, and mistakes are inevitable.
- Prioritize user safety when making design choices. Do not accept design elements that compromise user safety, when safer choices are available.

Vehicle speed on impact with a vulnerable user greatly influences injury and survivability. Speeds of 30 km/h or less are considered desirable. Providing spatial separation between modes gives errant vehicles room to decelerate before impact. This becomes increasingly important as operating speeds climb higher than 30 km/h.

3.4 Parts of the Boulevard

Specific naming conventions are used to describe the parts of Confederation Boulevard. The parts form an urban structure to organize thinking, categorize spatial typologies and provide a hierarchy for Confederation Boulevard. While parts may overlap, they are distinguished because each one has a unique design response, as outlined in the guidelines.

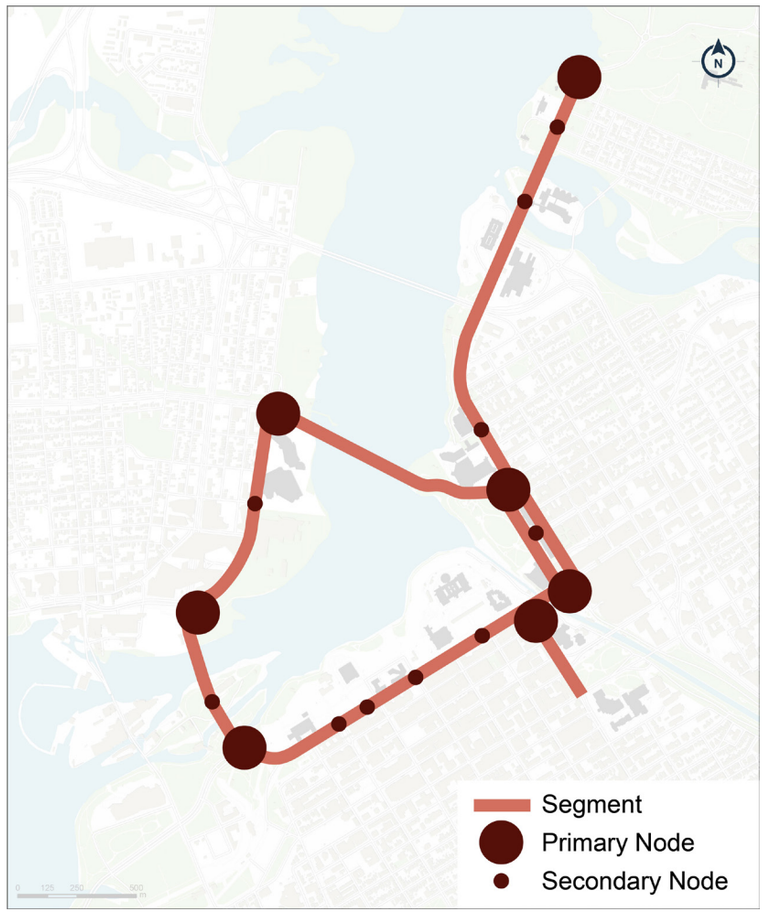


Figure 17: Segments and nodes

Segments are the linear components of Confederation Boulevard. They mainly consist of the street corridors, but also include the adjacent frame of buildings or landscapes that are important contributors to the overall character and experience of Confederation Boulevard. A key plan of segments as well as segment-specific guidelines are provided in **Section 6.1**.

Primary Nodes are special places along Confederation Boulevard, marking changes of direction and points of entry. They have their own unique sense of place, defining spaces through built form, landscaping, furniture, lighting and other components, and are important public gathering areas. They feature significant commemorations, interpretations and public art. A key plan of Primary Nodes as well as node-specific guidelines are provided in **Section 6.2**.

Secondary Nodes are special places along Confederation Boulevard, similar to but smaller than the Primary Nodes. They have their own sense of place, with a small outdoor space (existing or planned). They are located where there are important links to the adjacent urban fabric or landscape. Many Secondary Nodes are located mid-block along segments, where there is a strong pedestrian desire line to an existing or future connection to the Ottawa River. A key plan of Secondary Nodes as well as node-specific guidelines are provided in **Section 6.3**.

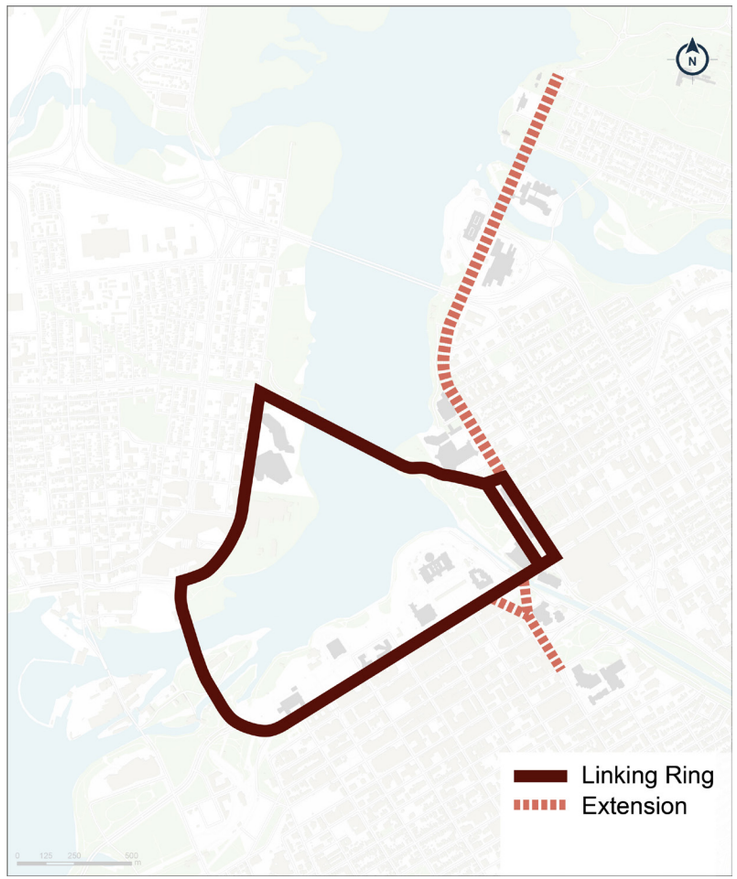


Figure 18: The Linking Ring and extensions

The **Linking Ring** connects Ottawa and Gatineau to encircle the centrepiece of the Capital, focused on the Ottawa River valley, and connecting the major institutional uses in this core area.

The **extensions** are other important ceremonial streets that are part of Confederation Boulevard and that connect to the Linking Ring.

Figure 19: The Esplanade and Outer Ring

The Linking Ring has two subcomponents.

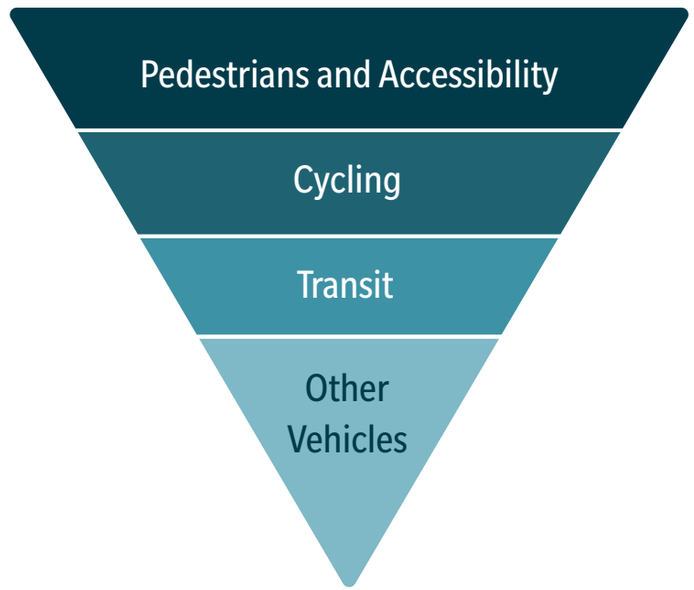
The **Esplanade** is the inner side of the Linking Ring, closest to the Ottawa River and many of the major institutional buildings adjacent to the river. The Esplanade is of the highest design quality, as it provides the symbolic 'red carpet' encircling the centrepiece of the Capital.

The **Outer Ring** is the opposite side of the street to the Esplanade and is closer to the urban fabric of Ottawa and Gatineau.

4 Streetscape Components

4.1 Mobility Components

Confederation Boulevard is a transportation corridor whose functionality is essential to the Capital and the two cities. The Boulevard has four mobility components, listed in order of priority as established by the sustainable mobility guiding principle:



4.1.1 Pedestrians and Accessibility

Pedestrian comfort, safety and enjoyment is the highest priority. The Grand Esplanade is a centrepiece of the Boulevard, a generously wide and richly furnished pedestrian promenade that both showcases and provides access to the various parliamentary, judicial and federal institutions that line Confederation Boulevard.

Pedestrian facilities along the Boulevard segments are shown in **Figure 20**. Pedestrian connections at nodes are discussed further in **Section 6**.

Pedestrian facilities must be safe, accessible, continuous and comfortable. Regular crossing opportunities must be provided to maximize pedestrian connectivity and permeability.

As the highest priority for mobility, pedestrian spaces should be the first to be widened beyond the minimum standard, where space allows. The Esplanade in particular should be generous in width, a minimum of 4 metres for the promenade and a minimum of 2.5 metres for the tree and furnishing zone, receiving more space than the sidewalk on the opposite side of the street.

Figure 20: Map of pedestrian facilities along Confederation Boulevard

Accessibility

The approach to accessibility design must be consistent throughout the Boulevard, using best practices established federally, provincially and municipally. The following accessibility design principles must be respected:

- Direct and intuitive paths of travel
- Universally accessible wayfinding signage, including for people with reduced or no vision and people who cannot read
- High-contrast tactile delineation and guidance for people with reduced or no vision
  - Tactile walking surface indicators, in the form of truncated dome tiles, to alert pedestrians when they enter hazard areas, for example at crosswalks and at the top of stairs
  - Cane-detectable linear guidance such as curbs along roadways and cycle tracks, and soft landscaping along the back of sidewalks
  - Tactile walking surface indicators, in the form of directional bars, to help direct pedestrians where other cues are not enough
  - Cane-detectable edges to warn of overhanging hazards such as signs or public art
- Enhanced tactile delineation and wayfinding along pedestrian plaza areas that are shared with vehicles of any type
- Accessible slopes, providing enough crossfall to ensure positive drainage while avoiding steeper slopes that exceed accessibility criteria
- Adequate clear width to ensure two mobility devices users can pass each other at any point
- Accessible crossings, including accessible pedestrian signal hardware at traffic signal intersections and avoiding solutions that over-rely on pedestrians' senses, especially vision
- Smooth rolling surfaces, avoiding surfaces with regular bumps that can exacerbate chronic pain for mobility device users
- Regular rest areas, such as benches, for people with reduced mobility or stamina
  - Ensure spacing remains adequate in all seasons, including winter months
- Unimpeded travel ways avoiding freestanding temporary signage structures that create tripping hazards and impede safe pedestrian traffic flow
- Universally accessible interpretation for commemorations and public art

Accessibility audits should be performed during both the design and implementation phases. These audits should include input from both training professionals and people with lived experience.

Public washrooms are important for a variety of people, including older adults, young children, and individuals affected by gastrointestinal, kidney and bladder diseases. However, they pose a challenge in the context of the Boulevard. Public access to washrooms in adjacent buildings should be encouraged, with clear signage to help Boulevard users find them. It may be appropriate to build public washrooms at select nodes. This option should be considered where people are expected to congregate and where food is sold.

Safety and Integrity of Pedestrian Spaces

The use of sidewalks, plazas and other pedestrian spaces for the routine parking of security and maintenance vehicles should be discouraged and prevented. Because pedestrians have the highest priority, pedestrian spaces should remain integrally available to them at all times. As other vehicles have the lowest priority, road capacity should not be a consideration where there is an identified need to designate curbside space for the routine parking of security and maintenance vehicles. Those functions (where the need for them is demonstrated) should take precedence over road capacity to avoid eroding pedestrian space.

Proactive structural measures to keep private vehicles out of pedestrian spaces (sidewalks, plazas, etc.) should be taken at key locations where problems are observed. These measures may include short posts or pillars, planters, benches or other types of structural elements that stop motor vehicles from jumping the curb and entering pedestrian space. They must be designed to match the look and feel of other elements of Confederation Boulevard urban furniture.

Climate Change

The increased frequency and intensity of heat events already experienced in the Capital will continue to climb in the decades ahead. Shade and drinking water will become essential, not only for comfort but also for safety. Shade should preferably be provided by trees. Built shade structures can also be used where contextually appropriate. Misting stations and other outdoor cooling solutions could also be considered.

While their frequency is expected to decrease, extreme cold events will continue to occur and should be taken into account in designing the built environment and planning winter animation programs. Mitigation measures could include wind screening that does not block sunlight, and warming areas as part of winter animation programs.

4.1.2 Cycling

Once complete, the Confederation Boulevard cycling loop will accommodate cyclists. It will feature a continuous, separated and two-way cycle track, with enhanced connections to the broader network. Portions of Confederation Boulevard may also be used as part of the Capital Pathway network, for example using the proposed two-way cycle track along the river side of Sussex Drive North as part of the projected connection between the Rideau Canal and Rideau Falls.

The planned long-term buildout of cycling facilities along Confederation Boulevard is shown in **Figure 21**. Cycling connections at nodes are discussed further in **Section 6**. Only a limited portion of these facilities was in place when these guidelines were drafted.

Cycling facilities along Confederation Boulevard should be designed for all ages and abilities. User safety and comfort are a top priority. In the long term, all cycling facilities on Confederation Boulevard should be physically separated from traffic. Other facility types, such as bike lanes, are acceptable in the short term to improve on existing conditions while waiting for funding for more comprehensive solutions that often are feasible only as part of a larger reconstruction project.

As cycling is the second priority for mobility, cycling facility widths should be adequate for anticipated user volumes. Where there is space, cycling facilities should be widened further. Buffer widths separating cyclists from traffic should be set using applicable design guidance, given adjacent traffic volumes and speeds. Cycling facility and buffer widths must be selected to ensure that they are winter maintainable, even if a given link will not initially be maintained in winter. On bridges, barriers may be more suitable to protect cyclists and should be considered accordingly.

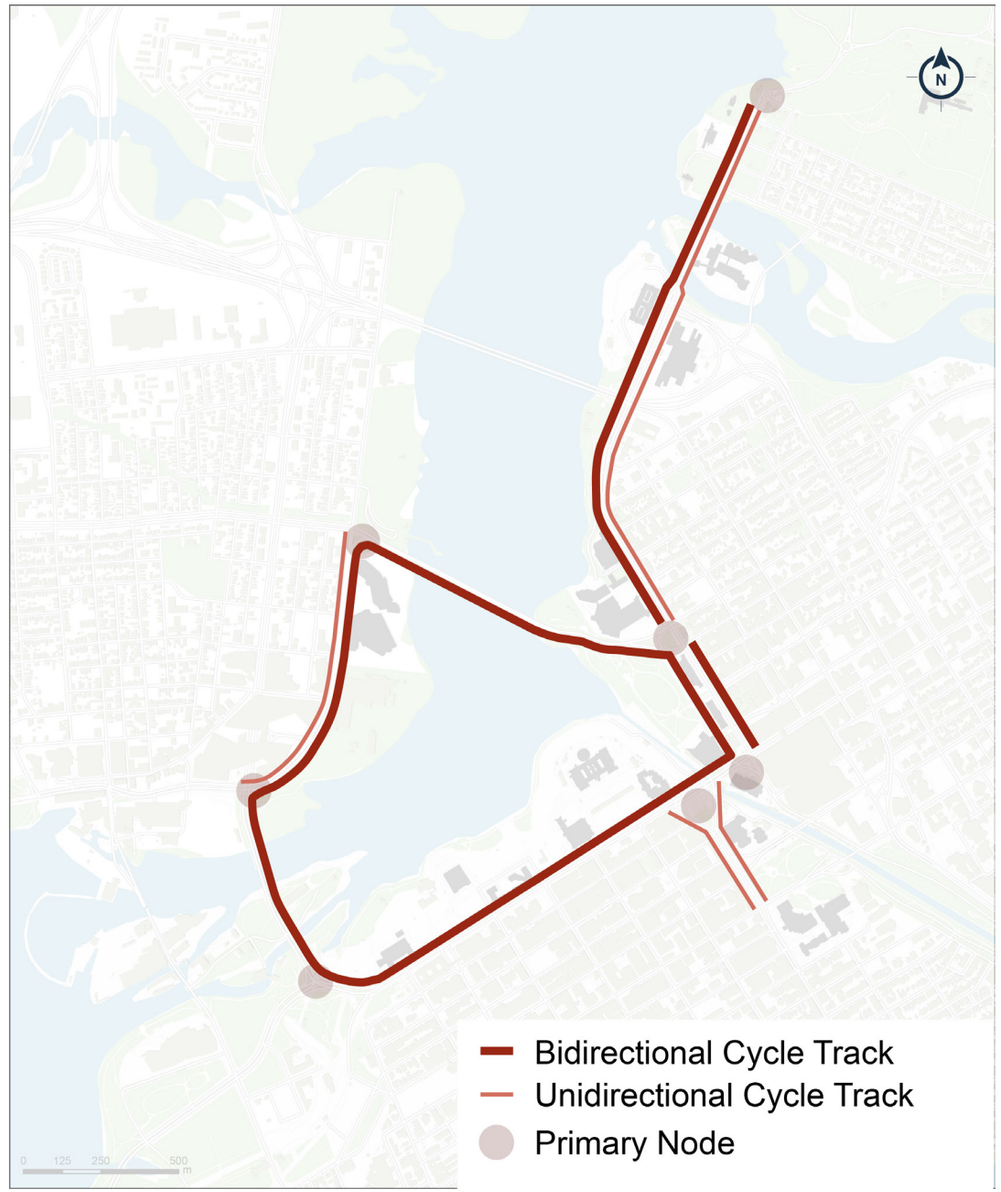


Figure 21: Map of planned cycling facilities along Confederation Boulevard

Multi-Use Pathways and Shared Sidewalks

The use of shared spaces for pedestrians and cyclists degrades the experience for all users and negatively impacts accessibility. On Confederation Boulevard, shared spaces should be a last resort only, when no other solution is feasible for providing the required pedestrian and cycling connectivity. If used, the width should be as generous as possible to ease cyclist–pedestrian interactions.

Bike Parking

Bike parking should be provided continuously along segments with frequent destinations, such as near the ByWard Market. Larger volumes of bike parking should be provided near notable destinations along the Boulevard to encourage cycling by all users, including sightseeing tourists and residents leading their daily lives.

Bike Sharing and Micromobility

Bike sharing services, while not currently present, are encouraged. Bike sharing stations should be provided at key locations to make cycling available to all users, residents and tourists. Major reconstruction designs should allocate space for bike sharing stations. Interim uses, such as bike parking, can be considered for this space. Bike sharing stations must meet elevated aesthetic design standards as approved by the NCC and must be strategically placed to avoid negatively impacting the other uses of the Boulevard, as approved by the NCC.

E-scooter use should be allowed on Confederation Boulevard on-street cycling facilities, in accordance with applicable laws. E-scooter use should be prohibited on pedestrian facilities, such as sidewalks and anywhere cyclists are directed to dismount and walk. E-scooter parking must be limited to designated areas that are strategically placed to avoid negatively impacting the other uses of the Boulevard, as approved by the NCC. Providers of rental e-scooters must use technologies to enforce these requirements.

4.1.3 Transit

The Boulevard segments and nodes should include transit facilities such as tramway tracks, tram platforms, bus lanes and bus stops to support the efficient operation of the two transit authorities, STO and OC Transpo, as well as any future public transit initiatives that may arise. Tramway platforms and bus stops should include appropriate amenities such as shelters, benches and waste receptacles. Transit facilities must be designed and built to an elevated standard consistent with the rest of the Boulevard. Design elements are subject to NCC approval.

The design of tram platforms and bus stops must avoid unduly impacting pedestrians and cyclists travelling through the area. It must allow for convenient connections between these modes and transit. Stops and platforms located outside parliamentary buildings should also take into account security elements.

As the third priority for mobility, transit facilities should be given the minimum space required for safe, comfortable and efficient operation.

While this document does not specifically address the potential interprovincial transit loop, it does not rule out its implementation. The loop is supported by key principles such as sustainable mobility. If implemented, it would be expected to follow the principles and guidelines outlined in this document.

4.1.4 Other Vehicles

The accommodation of vehicles on Confederation Boulevard is the lowest priority. The width and count of vehicles lanes should be kept to the minimum required. Level of service and travel time considerations for passenger vehicles are the lowest priority when making decisions about trade-offs for spatial allocation. There must never be more than two general-purpose through lanes in a given direction anywhere on the Boulevard. Double-turn lanes should remain only where they are shown to be essential for the functionality of the two cities' road networks; otherwise, they should be phased out over time. No new double-turn lanes are to be permitted.

Priority should be given to finding alternative travel routes for passenger vehicles, gradually reducing their reliance on the Boulevard over time. Changes may need to be made to road networks outside the Boulevard to enable lane reductions on the Boulevard itself. Any such changes made outside the Boulevard must be commissioned at the same time as the corresponding lane reductions on the Boulevard so that traffic diverts as intended.

Speed Management

In keeping with Vision Zero principles, future modifications to the Boulevard should include speed management measures to reduce operating speeds.

A target operating speed of 40 km/h is appropriate for most of the Boulevard. A lower target operating speed of 30 km/h should be considered for narrower segments with high pedestrian volumes, such as the portion of Sussex Drive adjacent to the ByWard Market.

The street design must correspond to the target operating speed. Posted speed limits can be lowered without changes to the street only when the reduced speed is compatible with current 85th percentile speeds as measured by speed survey. When redesigning street segments, incorporate appropriate speed management measures for the target operating speed and reduce the posted speed limit accordingly during implementation.

Speed management measures must be selected and designed with the Boulevard's elevated standards in mind. Solutions such as narrowed lanes, raised intersections and visual side friction (trees and other vertical elements) are appropriate for the Boulevard. Solutions with unavoidable aesthetic impacts such as speed humps and on-road messaging are not appropriate for the Boulevard.

Alternatives to reduce sign clutter from speed limit signs should be considered. For example, in Ontario, gateway speed limit signs could be posted at entry/exit points to the Boulevard instead of at regular intervals along it. This would require support from the City of Ottawa, and may need Council approval and/or bylaw amendments.

Emergency Vehicles

Emergency vehicles must be able to move through the Boulevard smoothly. While they often share general-purpose lanes with traffic, this can mean having to allocate more space to traffic than would otherwise be desirable. Where feasible, the passage of emergency vehicles should be accommodated through other means that are not impacted by congestion, such as bus lanes or tramway tracks set flush, or mountable curbs into a driveable surface.

Street Parking and Accessible Loading Zone

Street parking is not a priority on the Boulevard. It should not be provided on reconstructed segments. Accessible loading zones are an exception and are permitted, but may require spatial concessions from the adjacent buildings they are serving in order to provide the required space.

However, consistent with **Section 4.1.1**, it is appropriate and encouraged to identify curbside spaces for maintenance or security vehicles to park in a way that leaves sidewalks unobstructed by vehicles. Where sufficient space permits a lay-by configuration, this option may be explored as long as it does not unduly erode pedestrian space, especially the integrity of the Esplanade. New lay-bys may be created by building curb extensions that result in reserving a lane for such spaces.

Tour Buses

Tour buses are encouraged to pick up and drop off on adjacent side streets as permitted by local bylaws. Tour bus pick-up and drop-off activities are permitted only at designated locations on the Boulevard, as approved by the NCC. These locations will be limited to select segments/nodes where the benefit to tour bus riders outweighs the impact on the Boulevard's image and users. Tour buses are not permitted to park on the Boulevard.

Accommodation of Large Vehicles

Much of the Ottawa portion of Confederation Boulevard is already not part of the municipal truck route network. As opportunities arise, more segments on both sides of the river should be removed from the truck route networks to eliminate as much truck traffic along the Boulevard as possible. Similarly, the number of segments that accommodate large tour buses should be reduced over time to limit access by large tour buses to only the segments/nodes authorized by the NCC for pick-up and drop-off.

While it is recognized that trucks may need to travel along the Boulevard for local access, this use should be reduced over time as well. Building renovations and new builds should orient the loading docks for access from alternative streets. Where this type of alternative access is not possible, local truck access routes should be planned so that trucks cross the Boulevard but do not need to drive along it. For example, while the Canadian Museum of History faces the Boulevard, its loading docks are accessed via Rue Saint-Étienne through Jacques-Cartier Park and by crossing Rue Laurier at Rue Victoria. As a last resort where truck travel along the Boulevard cannot be avoided, the affected length should instead be minimized.

Corner radii must be designed appropriately for the anticipated design vehicles, including transit vehicles. As truck traffic is reduced, it will become feasible to implement tighter corner radii in more locations. Tighter corner radii encourage slower turning speeds, shorten pedestrian crossings and free up more space for pedestrian waiting areas and the public realm.

Government and Other Special Vehicles

Confederation Boulevard must also accommodate essential and/or accredited vehicles supporting the operations of Parliament, including parliamentary shuttles. While these will generally be accommodated in general traffic lanes, special accommodation is required in select segments. Refer to **Section 6.1** for more details. If needed, shelters for parliamentary shuttles would be subject to the same design guidelines as transit shelters.

4.1.5 Protected Intersections

All traffic signal intersections along Confederation Boulevard should be designed and implemented as protected intersections as they are reconstructed. A consistent approach to protected intersection design should be taken throughout the Boulevard to the extent permitted by provincial traffic regulations.

Functional Requirements

The design of protected intersections on the Boulevard should take into account national, provincial and local standards and best practices. The following protected intersection design principles must be respected:

- Include safe waiting areas for vulnerable road users, sized appropriately for anticipated user volumes.
- Minimize crossing distances for pedestrians and cyclists.
- Provide accessible pedestrian signals with audible and tactile features, and with buttons mounted in intuitive locations at heights reachable by people using wheelchairs and other mobility aids.
- Time separate high-volume vehicular turning movements from pedestrian and cyclist crossings.
- For crossings that are not time separated:
  - Provide a leading walk or green signal for pedestrians and cyclists.
  - Set crossings back from the adjacent roadway to enhance sightlines between vehicles and pedestrians and cyclists.
  - Provide advanced stop bars for cyclists to make them more visible to motorists.
  - Use enhanced-visibility markings (green thermoplastic for cross-rides and ladder markings from crosswalks, or other urban design techniques with similar visual conspicuity).
- Minimize corner radii to provide more space to vulnerable road users and to reduce the speed of turning vehicles.
- Provide a direct and intuitive path of travel for pedestrians.
- For divided segments, add left-turn hardening to slow-turning vehicles and guide them to cross the crossrides and crosswalks at close to 90°
  - Design left-turn hardening to be mountable to accommodate larger vehicles while providing enough vertical deflection to discourage passenger cars from crossing at speed
- Design for accessibility (refer to **Section 4.1.1** for more details)
- Cyclist detection using detector loops is preferred
  - If pushbuttons need to be used, label them clearly and put them within reach of a cyclist stopped at the stop bar
- Make sure cyclists can feasibly manoeuvre their bikes through the intersection, taking into account larger bike types such as accessible recumbent bicycles, tag-along bicycles for children and bike trailers for toddlers.

Protected intersections that respect these principles feature a common geometric layout that is universal across jurisdictions. It is understood that traffic signal design will need to differ in Ottawa and Gatineau in response to applicable provincial regulations.

Urban Design Guidelines

Confederation Boulevard's elevated design standards must be applied to protected intersection elements. Protected intersections generally comprise the same building blocks as regular roadways and intersections, including pedestrian walking surfaces, cycle tracks, boulevards, curbs and crosswalks. The same design standards used elsewhere on the Boulevard for these elements can generally be applied to protected intersections. The following guidelines apply to paving treatments at protected intersections:

- Use pavers for crosswalks, with colour and pattern selected to mimic ladder markings and provide high contrast relative to adjacent surfaces.
- Use pavers or tinted concrete for cycle track in intersection corners to differentiate from the carriageway and emphasize priority of active modes.
- Select paving materials to provide high visual contrast between pedestrian surfaces and cycle tracks, with cycle tracks visibly darker to provide positive guidance to users who are accustomed to light grey concrete sidewalks and dark grey asphalt cycle tracks throughout the Ottawa-Gatineau area.
- Select paving materials for the carriageway, sidewalk, furnishing zone and medians as per guidance for the segment/node.

- Use granite tactile walking surface indicators where the pedestrian surface is pavers, and cast iron indicators where the pedestrian surface is concrete.
  - Avoid precast concrete and plastic indicators due to durability limitations with respect to snow clearing operations.
- Clearly demarcate crossrides, and provide a high-contrast surface for all crossrides that are not fully time separated from conflicting vehicle movements.
  - For intersections with unit paver centres, mimic "elephant's feet" crossride markings and high-contrast crossride body (where applicable) through paver colour and pattern selection.
  - For intersections with asphalt centres, conventional crossride pavement markings and green thermoplastic are acceptable for crossride markings and high-contrast crossride body (where applicable), respectively.
  - It is preferrable to fully time separate crossrides where possible.
- For intersection legs that are not part of Confederation Boulevard, begin transition to municipal standards beyond the crosswalk and median bullnose.

An example of a protected intersection layout is shown in **Figure 22**, with the different design elements identified.

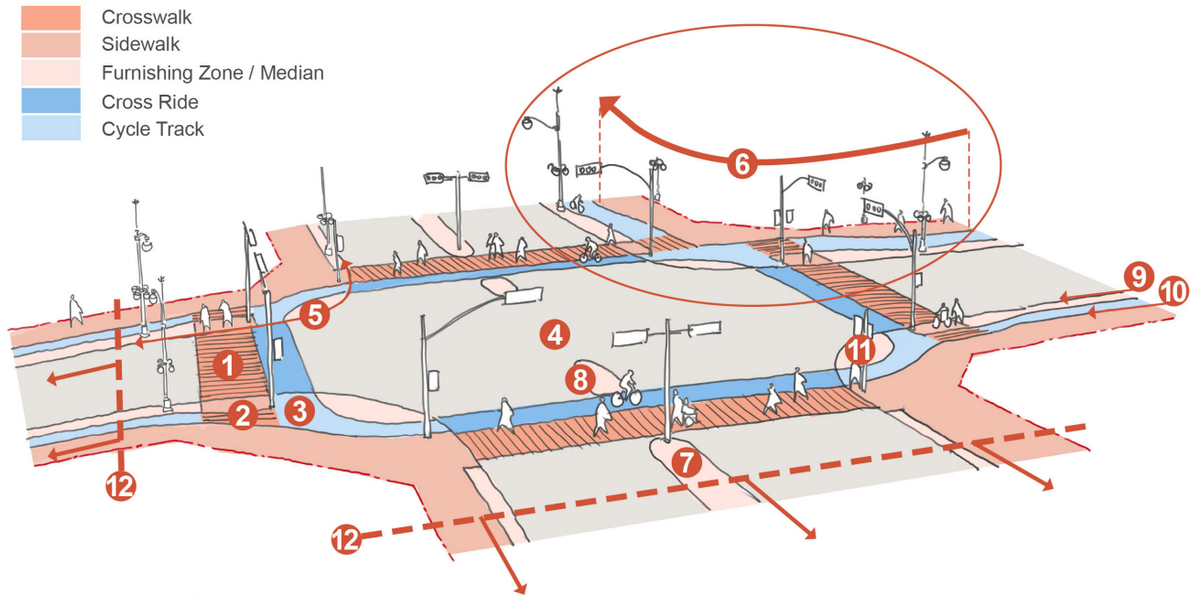


Figure 22: Design elements of a protected intersection

1. Crosswalks and ladder markings across carriageway articulated with unit paving
2. Crosswalk paving across cycle tracks articulated with unit paving using a design similar to carriageway crosswalks, potentially at a different scale
3. Cycle track paving material changes at intersection to differentiate from the carriageway and emphasize priority of active modes (e.g. pavers or dark tinted concrete)
4. Centre of intersection, including crossrides, could be unit paved
5. Curb edge of carriageway delineated through colour and material to clearly distinguish vehicular zone from active mode zones
6. Sidewalk and furniture zone paving materials are red unit paving along the linking ring and grey on other segments
7. Median with granite cobbles
8. Median extensions provide left turn hardening, using mountable granite curb and cobbles or monolithic granite pieces
9. Full height curb along the edge of carriageway
10. Half height curb delineating the sidewalk and cycle track
11. Eyebrow with full height curb and granite cobble, or monolithic granite pieces if too narrow for cobbles
12. Begin transition to municipal standards beyond crosswalks on non-Confederation Boulevard legs of intersection

4.2 Public Realm Components

4.2.1 Overall Character

The streetscape of Confederation Boulevard is a collaboration of many elements: street trees, sidewalks, furniture, commemorations, public art, monuments, public spaces, driving lanes, cycling facilities, and the adjacent uses and buildings. Together, these offer a variety of experiences. Over the Boulevard's 7 kilometre length, the context varies widely, meaning the character of the streetscape differs across segments. The Boulevard's success as a ceremonial route befitting the National Capital is in the consistent way the streetscape is treated. This includes the application of high design standards, and the repetition of streetscape elements such as lighting, trees and furniture. These elements are and must be unique to Confederation Boulevard to ensure it is a special place befitting its purpose and role in the National Capital and Canada. To this end, Indigenous placekeeping should take on an enhanced role in defining the Boulevard's character and the spaces along it, with emphasis on integrating diverse social, cultural, historical and ecological contexts into the Boulevard's sense of place, and considering their long-term impact, care and stewardship.

There are two fundamental concepts that define the character of Confederation Boulevard as Canada's ceremonial route.

1. The **string of pearls** created by the globe light standards that line the entire Boulevard.
2. The **red carpet** created by the red unit paving in the Grand Esplanade, or Inner Ring, encircling the Capital landscape.

Together with the Boulevard's other streetscape elements, these fundamental concepts unify the Boulevard across provincial and municipal boundaries. Their consistent application creates a unifying seam between Town and Crown.

Principles

- Provide high-quality, custom-designed features and materials reflecting a sense of permanence, stability and uniqueness.
- Establish and share a consistent design language for the segments characterized by formality and repetition of streetscape elements.
- Ensure the nodes are compatible with the segments. Nodes may have a more variable design expression, but should have the highest quality of materiality and design.
- Provide a high standard of maintenance and care.

4.2.2 Segment Character

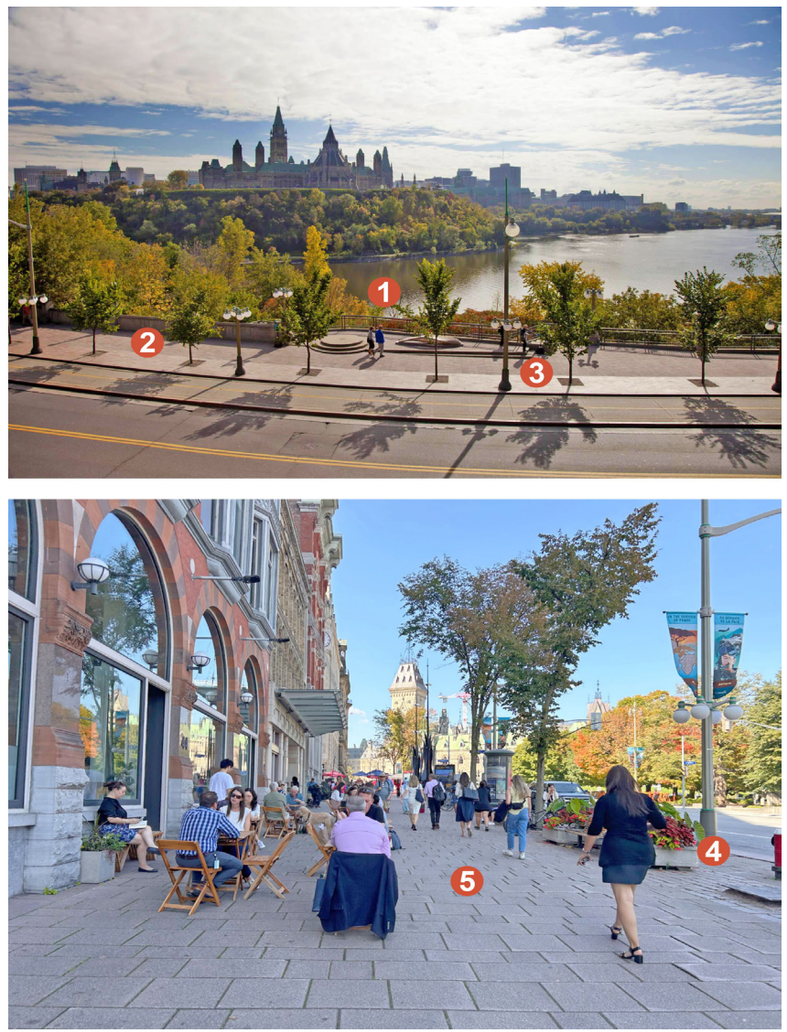
Defining Characteristics

Segments along Confederation Boulevard are distinguished by their character, which includes adjacent land uses, existing features, future adjacencies and right-of-way dimensions. Though there are variations in character between each of the Boulevard segments, all segments should exhibit formal, ceremonial design language achieved through the tailored application of the materials and furnishings palette established for the Boulevard.

A cohesive character along all segments is achieved through the consistent use of Boulevard elements at regular intervals, while at the same time limiting the use of elements that are not from the palette.

The design characteristics of segments include the following:

- A formal, ceremonial design language.
- A family of furnishings and materials that is designed specifically for the Boulevard. There are limited elements that are not drawn from the family of elements.
- Design elements repeated at regular intervals, particularly light standards with globe lights, banners and flags, and trees.



1. Deliberate attention to protecting or creating special places to view national symbols
2. Emphasis on the Esplanade, or Inner Ring, side of the Boulevard, as the primary pedestrian route and for viewing the Capital landscape
3. Trees and light standards arranged in formal rhythm
4. Consistency in materials, colours and furnishings
5. Generous pedestrian zones

Figure 23: Character-defining elements of segments

4.2.3 Node Character

Defining Characteristics

Nodes are punctuations along the Boulevard. They represent opportunities for a wider range of design expression, while maintaining the sense of place as part of the ceremonial route. While the furnishing and materials palette should be used as a starting point for detailing these spaces, furnishings and treatment that are compatible with the character of the segments can be explored.

The nodes function as gateways to the Boulevard and are appropriate locations for wayfinding elements. This includes active wayfinding, such as informational or directional signage, as well as passive wayfinding that encompasses the Confederation Boulevard materials and furnishings palette and the spatial design characteristics that allow people to easily read, recognize and navigate their environment intuitively.

The design characteristics of nodes include the following:

- Unique, memorable and highly symbolic places of high design quality.
- Furnishings and treatments that are compatible with the furnishing palette of the segments, but elevated in quality, including the use of granite in paving and hardscaping, and bronze as an accent material.
- Public art and commemoration are the focal points.
- Furnishings, paving, trees and other landscape elements support the multiple functions of nodes as viewpoints, gathering spaces and landmarks.
- Wayfinding elements, including signage and the bronze map on octagonal pedestals, help people navigate the Boulevard and surrounding urban area.
- The Confederation Square and Peacekeeping Monument nodes have a well-established and compatible character that should be maintained.
- The other nodes are partially developed and will evolve with the inclusion of public art and commemoration.

Figure 24: Examples of compatible, yet different paving and lighting design elements in the Confederation Square node

1. The Confederation Square node is compatible with the design and material character of Confederation Boulevard, but has some differences
2. Paving elements that are unique to the node include the random flag pattern for red granite, and grey pavers in running bond pattern. Paving elements that are consistent with the defining characteristics are the use of red granite, and the defined, formal paving fields
3. Lighting elements that are unique to the node include street and pedestrian light supports and fixtures that are different designs. Lighting elements that are consistent with the defining characteristics are the use of quality materials, the formal design language, the base-middle-top design, the multi-orb fixture on top of the custom designed pole and the colour

4.2.4 Lighting and Pageantry

The existing lighting along Confederation Boulevard is one of its strongest design expressions. While the Boulevard's sidewalks, trees, buildings, public spaces and traffic functions change with different contexts, the family of lighting is consistent throughout. More than any other element, lighting creates a distinct ceremonial presence that unifies the Boulevard's visual image. This is especially important at Ottawa's latitude with longer periods of darkness. The night image of the Boulevard is extraordinary, creating a string-of-pearls effect along its entire length.

Light poles are equally impactful during the daytime. Their placement close to the street and sidewalk edges, and their frequency, spacing and overall rhythm frame the Boulevard, define its edges and establish a unified presence through all the segments. Banners and flags suspended from the street lighting are an important contributor to the pageantry and ceremonial function of the Boulevard.

Light poles and fixtures are custom-made for the Boulevard. Consistently applied, high-quality design details, such as fixture bases, luminaires, materials and colours, create a family of lighting used for sidewalks, streets, gateways and other applications. The lighting approach must be maintained. As strong vertical elements in a consistent pattern, the Confederation Boulevard light standards foster a Capital identity that has come to be recognized at all times of day and in all seasons.

Principles

- Ensure lighting is continuous along both sides of the Boulevard and consistent in the application of its locational design attributes, such as placement and spacing.
- The predominant lighting must be drawn from the standard Confederation Boulevard family of lighting, particularly along segments.
- Nodes, gateways and special locations may have accent lighting that adds to the base family, but its design characteristics must remain visibly rooted in the Confederation Boulevard family.
- The impacts of functional lighting should be minimized.
- Refer to the Capital Illumination Plan for further direction.

Lighting fixtures and elements along Confederation Boulevard can be largely grouped into three categories: standard, accent and functional lighting.

Figure 25: Three types of lighting

1. Standard Confederation Boulevard lighting
2. Accent lighting
3. Functional lighting

Standard Confederation Boulevard Lighting

The existing Confederation Boulevard family of lighting has a consistent design language, both in the stylistic details of the poles and luminaires, and in their placement and organization. This has resulted in a unique, iconic character for Confederation Boulevard. This strong visual character will be maintained. Key elements defining this character include the following:

1. Consistent colour scheme: Confederation Boulevard dark grey base, Confederation Boulevard medium grey fluted pole, green top (spire), gold leaf finial.
2. A distinct base-middle-top design. Poles are fluted. The spire is an important element of its design
3. Curved arms for streetlights
4. Flag or banner
5. Banner
6. Globe light fixtures
7. Consistent dimensions across the family of lighting for the pedestrian fixtures, banners and streetlight fixtures
8. Street standards are a single globe on a curved arm, with or without pedestrian-level lighting
9. Pedestrian standards are smaller with clustered globe fixtures
10. Gateway standards are taller with multi-tiered clustered globes
11. Light standards are frequently and regularly spaced to create a strong rhythm and visual identity
12. Pedestrian lighting is widely used on the Esplanade, either stand-alone or integrated with streetlight poles
13. A second row of pedestrian-scale poles is provided in special locations such as the edges of green spaces or high pedestrian traffic areas. Positioned at the inner edge of the sidewalk
14. Poles positioned curbside within +/-2.5 metres of furniture zone. Creates a corridor or palisade effect

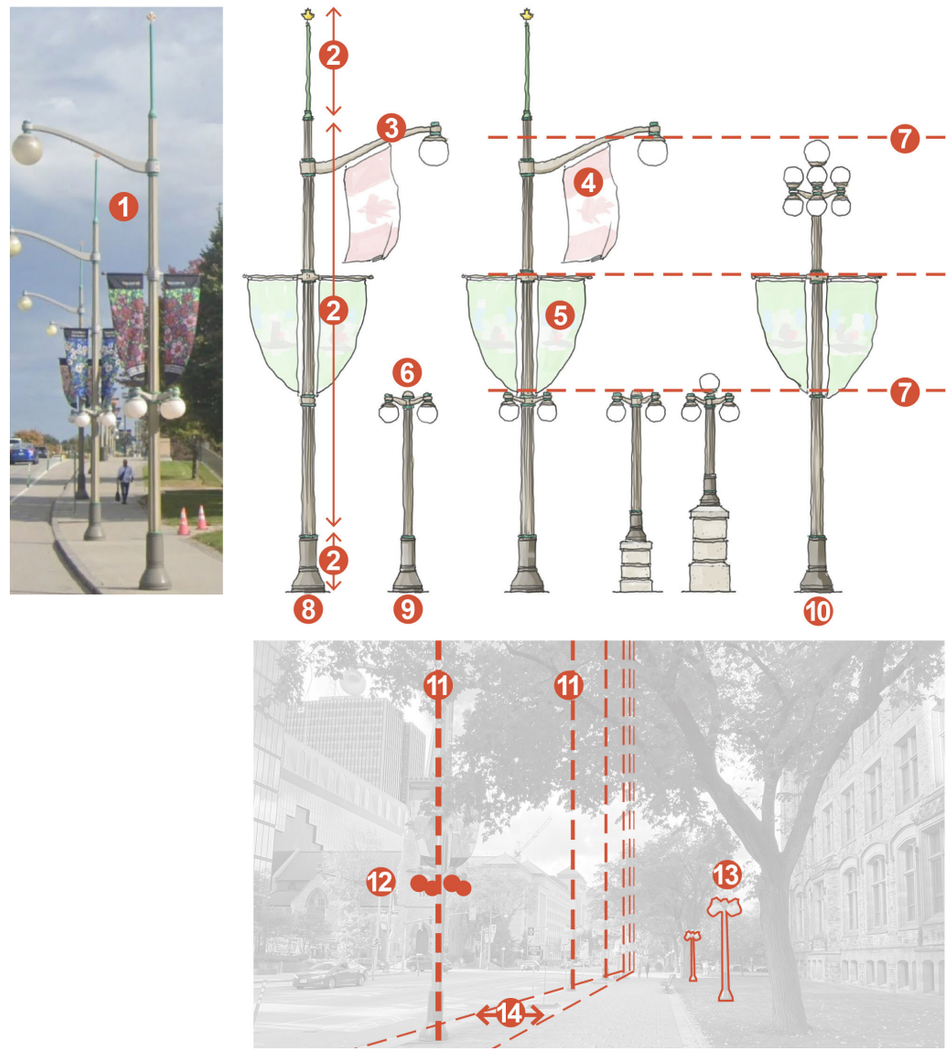


Figure 26: Design elements that define the character of lighting

Guidelines

- Maintain the string-of-pearls effect that creates a memorable nighttime image along Confederation Boulevard, achieved through the following:
  - Globe fixtures for pedestrian and vehicular lighting
  - Clustered globes for pedestrian lighting
  - Frequent and regular spacing, with poles consistently aligned, creating a strong rhythm
  - A colonnade effect on both sides of the street (straddling the carriageway, and where appropriate, both sides of the sidewalks)
- Maintain the character and style of the standard family of design details for any retrofit or replacement of the existing globe light fixtures to respond to energy performance. In segments, only the standard family of lighting is to be used. New lighting types are not permitted.
- Consider upgrading and retrofitting existing light fixtures to improve energy and lighting performance. Coordinated enhancements to the standard family may be made as long as they respect and reinforce the iconic character of Confederation Boulevard's lighting design. This includes the following:
  - Globe/spherical fixtures and shrouds.
  - Consistent colour palette (grey/green).
  - Decorative elements such as the street light spire and maple leaf.
  - Consistent armature for flags, banners, seasonal displays and other elements of pageantry.

Accent Lighting

Accent lighting is any lighting that adds to the standard family of lighting. It may include the following:

- Specialty light fixtures to mark nodes and gateways.
- Ambient lighting elements such as bollards, railings or directional lighting.
- Supplemental event lighting, projection, Gobo technology, coloured or changeable lights, and seasonal or temporary lighting, for example, augmenting the Winter Lights Across Canada route or enhancing special occasions such as holidays and processions.
- Illumination of commemorations and public art, building lighting or landscape lighting.

Guidelines

New light poles and fixtures must be designed with the same design language as the standard family of Confederation Boulevard lighting and must exhibit enhanced design quality and detailing. This may occur, for example, where a deliberately designed, additional type of light is desired to create a unique sense of place at a gateway, node, bridge or other unique location. New light poles and fixtures must be based on the design characteristics of the standard family of lighting, including the following:

- Be compatible with or subordinate to the standard family, with the same or complementary colours and materials.
- Provide a refined form and aesthetic, such as an articulated base, middle and top, articulated joints, fluted profiles, reveals or trim.
- Provide enhanced lighting at gateways to define a threshold through which people pass. The current gateway light standards (special, taller, multi-globe poles that are part of the standard family of lighting) could be augmented or replaced with adapted technologies.
- Where appropriate, use lighting that deliberately recedes into the background, ideally with no pole or fixture visible, for example, uplighting fixtures that are hidden in the landscape or screened by architectural elements.
- If accent lighting is introduced along segments, its impact on the streetscape should be minimized through the following techniques:
  - Minimal change to the pattern of standard lighting fixtures, aligned with the location and pattern of other elements of the streetscape, or
  - Ideally, located beyond the sidewalk zone, where it does not interrupt the colonnade effect of the standard lighting.
  - Punctuate and illuminate points of interest, such as nodes, with a coordinated and decorative ambient lighting effect.

Functional Lighting

Functional lighting is utilitarian-only lighting that cannot be designed to be compatible with the standard family of lighting design elements, such as traffic lighting.

Guidelines

- Place functional lighting where it does not interrupt or detract from the existing family of Confederation Boulevard lighting.
- Minimize the number of functional lighting elements by consolidating functions onto fewer poles.
- Design characteristics should be visually quiet with simple, minimal elements.

Figure 27: Examples of functional lighting

4.2.5 Materials, Furnishings and Amenities

In addition to the custom-designed light fixtures, there is a family of unique, high-quality materials and furnishings along the Boulevard that also plays a significant role in defining its ceremonial character and contributing to a cohesive image. This family includes paving, bollards, seating, waste receptacles, planters, bicycle parking, drinking fountains, signage and security features. The design characteristics of these custom-designed furnishings and amenities are refined and articulated in keeping with the architecture of the Capital; they are rarely purely utilitarian, though sometimes they may be drawn from a larger, non-Boulevard family of furnishings.

Principles

- Ensure that all materials and furnishings are consistent with the design characteristics of the existing Confederation Boulevard family. New types of furnishings or additional variations of existing furnishings must incorporate the Confederation Boulevard design themes including materials, colours and detailing.
- Update existing furnishings to equivalent contemporary technical standards, where needed, without varying their design.
- Consider a larger furnishing palette of custom-designed elements that matches the design language of the existing family of furnishings and its defining characteristics, to provide additional design choice, flexibility and modularity in future projects.
- Use noble materials such as stone, wood and metal for furnishings and streetscape elements.
- Use red Canadian Shield granite as a prominent material where stone elements are desired, such as in paving and walls. Priority locations for the use of granite are Wellington Street in front of Parliament Hill, and all nodes.
- Use furnishings consistently across all segments, drawn from the base family of furnishings.

Defining Characteristics

While there is a variety of furnishing types, materials and amenities in the Confederation Boulevard family, there are consistent design elements among them that define the base character of the family.

These include natural, high-quality, noble materials such as granite, wood and bronze, along with a consistent colour palette of predominantly mid-grey tones, with green and gold accents that reflect the surrounding architectural details and natural landscapes of the Capital. Furniture, walls, fences and other hard landscape elements generally have a well-articulated base, middle and top.

1. Consistent furniture zone adjacent to the curb edge along segments
2. Articulated and decorative forms based on traditional designs, with datum lines, reveals and decorative elements
3. Distinct base-middle-top profile
4. Confederation Boulevard grey colour scheme
5. Red unit paving and curbs
6. Granite
7. Concrete
8. Wood/Timber
9. Metal
10. Bronze/Copper accents

Figure 28: Design elements that define the character of the family of furnishing and materials

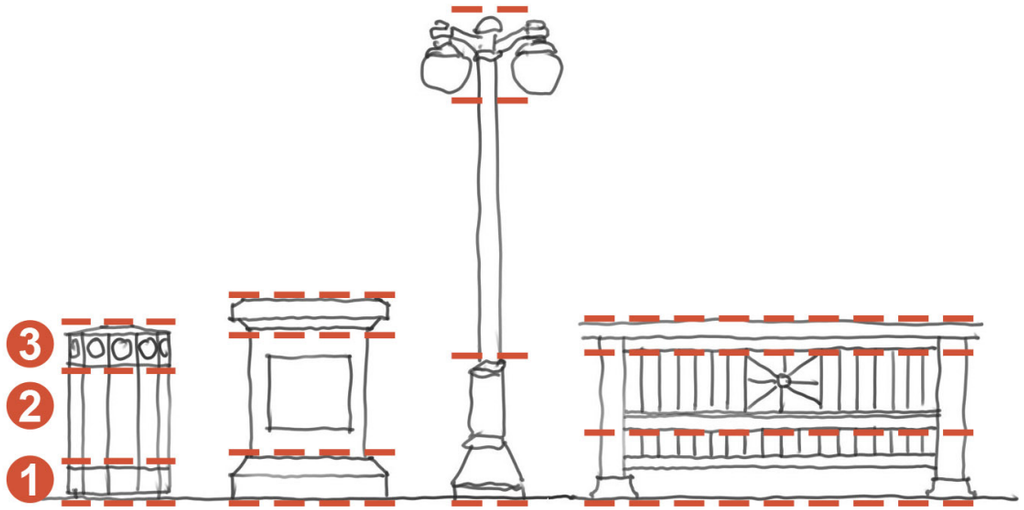


Figure 29: Base-middle-top design principle

1. Base
2. Middle
3. Top

Additional Guidelines

Seating

- Seating should be provided every 30 metres, where feasible, to meet accessibility guidelines.
- Seating can take many forms, including benches, seat walls and planter edges that are of appropriate height and are accessible to the sidewalk.
- Consider wood slats for the top of seating walls that are designed for easy replacement and refinishing as required.
- Accessible seating options should be provided. Accessible seating includes:
  - Clear spaces for mobility devices, located next to seating elements.
  - Seating (benches) with back rests and arm rests.
- Consider modular seating and bench designs, compatible with the Confederation Boulevard family of furniture, that provide opportunities for seating clusters that can be reconfigured based on programming needs.
- Ensure a portion of the seating along the Boulevard includes year-round options, such as seat walls or planter edges, located intermittently along the Boulevard so that seating is available in winter if benches are removed. Where possible, place freestanding benches out of the path of snow removal operations, allowing them to be kept in place year-round.
- The custom fabricated benches for Confederation Boulevard should be the primary seating, except in areas with elevated security requirements where security benches are used and provide sufficiently frequent seating.
- Place additional seating in areas where people gather, linger, people-watch or view.

Figure 30: Design elements that define the character of the seating

1. Ash wood slats with clear finish on typical Confederation Boulevard benches
2. Confederation Boulevard grey metalwork
3. Use of timber, granite or precast concrete for accent seating along planter edges; timber slats can be removable for refinishing and maintenance

Bollards and Security Measures

- The preferred design approach is to create integrated design solutions where separation is achieved by furnishing elements that enhance the streetscape character and contribute to the design expression, for example, permanent or movable planters, poles, permanent seating or low landscape walls, among others, rather than bollards.
- Conventional bollards should be used sparingly. Explore other forms of furnishing or alternative design solutions to accomplish separation and security. See **Section 4.3**.
- Update the bollard design from the Confederation Boulevard furnishing family to be more compatible with the characteristics of the Confederation Boulevard family, such as more deliberate and pronounced details, and to provide a more robust anchoring mechanism.

Walls, Fences and Balustrades

- Balustrades, handrails and other fall-prevention safety features are common along Confederation Boulevard and make a significant contribution to the streetscape character. Their architectural design character should elevate them beyond their utilitarian function.
- To maintain views and safety, keep walls as low as possible while retaining their function. A low wall with an open decorative metal fence or railing is preferable to a solid wall.
- Emphasize wall and balustrade design at bridges to create a sense of landmark and provide an enhanced crossing experience. Provide lighting on top of abutments and posts.
- Consider accessibility and views through and over balustrades from the height of a person using a wheelchair. Avoid placing top rails at eye height. Consider transparent panels at viewing points to accommodate a range of eye heights.
- Install accessible handrails.
- Low walls are a site-specific design response that has developed along the northern segment of Sussex Drive, which can be applied to other areas of the Boulevard to define edges and create seating.

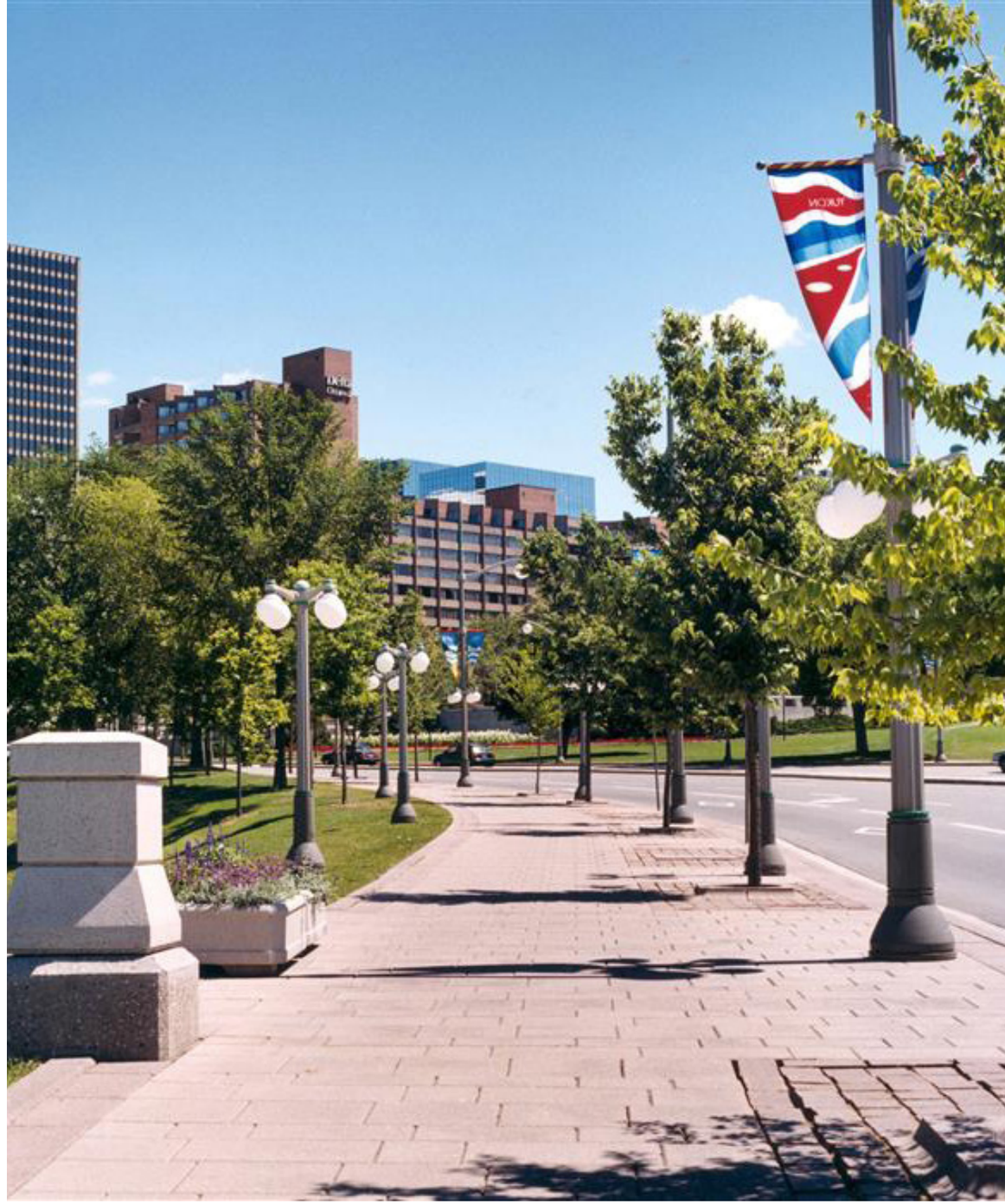


Figure 31: Design elements that define the character of walls, fences and balustrades

1. Distinct base-middle-top design
2. Repeating fence or wall modules
3. Stone or concrete materials for walls
4. Confederation Boulevard grey metal for fences and balustrades
5. Decorative elements include datum lines, reveals, patterns and high-quality stonework Vertical rails, cross patterns ('X') and circles ('O') are common patterns for metalwork
6. Beveled or curved cap design
7. Pillar or column element at wall terminus and major corners (change of wall direction)
8. Light standards mounted on bridge posts and pillars

Waste Receptacles

- New waste receptacles may be needed as waste collection methodologies change over time, for example, multi-stream waste separation for garbage, recycling, organics or others. New waste receptacles should be custom-designed to match the design of existing Confederation Boulevard waste receptacles.
- Waste receptacles should be located along the entire Boulevard, with greater frequency in areas of highest need. This may require continuous adjustment based on pedestrian flows, collection frequency and receptacle capacity. Generally, provide more waste receptacles at nodes, at intersections and near seating.

1. New waste receptacles must be based on the character of the existing Confederation Boulevard grey metal waste receptacle, to match the Confederation Boulevard family of furnishings

Figure 32: Waste receptacles

Bike Parking

- A family of bike parking streetscape elements is needed to provide bike locking and storage along the Boulevard, such as bike posts, bike corrals, bike maintenance stations, covered parking and bike lockers. Design these elements in the same character as the overall Confederation Boulevard family of furniture.
- Deploy bike parking and amenities along Confederation Boulevard based on need, context, available space, adjacencies and design goals.
- Locate bike parking in visible and accessible areas, near destinations.
- Bike rings or racks should have two points of contact for locking.
- Preferred locations for public bike parking in the Parliamentary Precinct are at key points of entry to the campus, along main travel corridors such as Wellington Street. Place public bike parking areas strategically at key points of entry to encourage visitors to dismount before entering the Triad Area 'walk your bike' zone. Favour posts and corrals in discreet areas to minimize visual clutter. Coordinate bike parking locations in the Parliamentary Precinct with the Long Term Vision and Plan.
- Avoid putting bike parking in prominent view corridors and in the middle of gathering areas.

Drinking Fountains

- Provide access to drinking water periodically along the Boulevard. Prioritize locations with high pedestrian traffic.
- Drinking water stations must match the character of the Confederation Boulevard family of furniture.
- Drinking water stations should be bi-level to enhance accessibility and include bottle filling and pet-friendly options.

4.2.6 Trees and Landscaping

Tree-lined streets are a desirable characteristic for the National Capital, and the relatively continuous deciduous trees lining Confederation Boulevard are an important character-defining element. Trees provide shade, beauty, seasonal variation and ecosystem services. A key objective of the original vision for Confederation Boulevard has been to provide a double row of trees along the Esplanade to emphasize the ceremonial route and provide a sense of promenade for pedestrians. This has not been universally achievable due to space restrictions, traffic requirements, soil depth and utility conflicts. However, soil cell technology is a proven benefit to tree health, size and longevity, and where there is space, every effort should be made to retrofit all trees within sidewalks to have soil cells with adequate soil volumes. This will provide immediate benefits for the urban tree canopy and ensure a continuous green frame for Confederation Boulevard over the long term. Refer to the NCC Forestry Strategy.

Principles

- Provide a continuous row of trees on both sides of the street, except where there is absolutely no space (bridges, building setbacks).
- Provide a double row of trees where possible. This may be accomplished within the Boulevard right-of-way, or with additional rows of trees on abutting properties.
- Protect large, mature trees along the Boulevard and nodes, especially those identified by the NCC as remarkable trees.
- Consider security considerations in the placement and design of tree locations.

Defining Characteristics

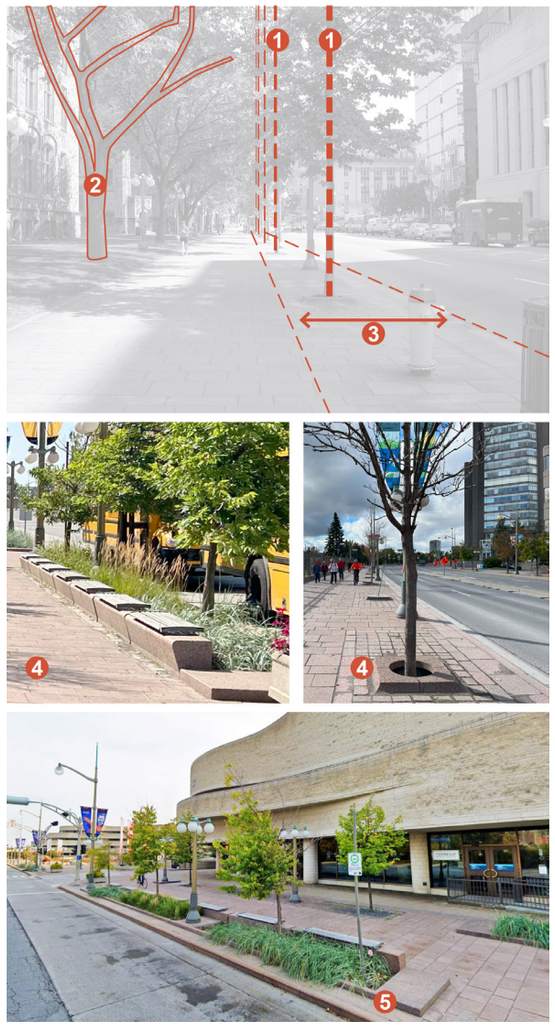


Figure 33: Design elements that define the character of street trees

1. Trees are frequently and regularly spaced to create a strong rhythm and visual identity. They are aligned in formal rows
2. A second row of trees is provided where possible in green space or hard surface areas and may be outside the right-of-way in places
3. One row of trees is positioned curbside within +/-2.5 metres of furniture zone, where possible, creating a corridor or palisade effect
4. Tree surrounds, curbs, planters, furniture, low rails and other edges provide protection from physical and salt damage
5. Within the tree/furnishing zone adjacent to the carriageway, the preferred tree planting condition is likely an open planter with curb edges, subject to ongoing monitoring and refinement. This condition is believed to maximize the health, size and longevity of the tree by protecting it from compaction and exposing the soil surface to the air to enhance aeration and water absorption

Additional Guidelines

- A goal of the urban forest is to create a continuous, connected tree canopy along sidewalks, where the crowns of adjacent trees grow together at maturity.
- Street trees should have a high crown that is a minimum of 2.5 metres above the ground to maintain clear views.
- Movable seasonal planters are part of the family of furnishings for the Boulevard. They add seasonal interest and should be maintained. They are removed in winter to facilitate snow clearing. They should be located in areas of high pedestrian traffic for maximum benefit.

Figure 34: Example of a seasonal planter

Planting Conditions

- The preferred conditions for tree planting are open areas of naturalized vegetation or lawns, where there are large soil volumes with good access to water and air exchange. However, this is not a common condition along the Boulevard, being more typical of adjacent land uses.
- Typical tree planting conditions along the Boulevard are paved sidewalks. Here, the optimal planting conditions are likely open planters. Planters should be surrounded by a raised seat wall, a curb or similar barriers to deter pedestrians and reduce damage from snowplows and salt. Open planters promote properly aerated (non-compacted) soils, water absorption and air exchange, which are essential to tree health. Within the planter, the soil surface is level with the sidewalk surface. Longer, continuous planters with two to three street trees in each are preferred, as they create better conditions for tree growth. Soil cells may be needed to achieve minimum soil volume.
- In addition to street trees, open planters should be planted with low-height vegetation with ecological benefits. In the central areas of the open planter, select species that are perennial or evergreen with year-round presence. In high profile locations, there is potential for seasonal planting at the ends of the planter where tree feeder roots will not be damaged by the seasonal planting procedure.
- In areas of high pedestrian use, such as along Wellington Street or Sussex Drive, or in nodes and gathering areas, trees should be planted in hard surface areas to provide flexibility of the ground plane for programming and maximize the space available for pedestrians. In these cases, the ground plane has paving or tree grates that extend up to the trunk of the tree, and there is little exposed soil. Soil cells are required to achieve minimum soil volume.

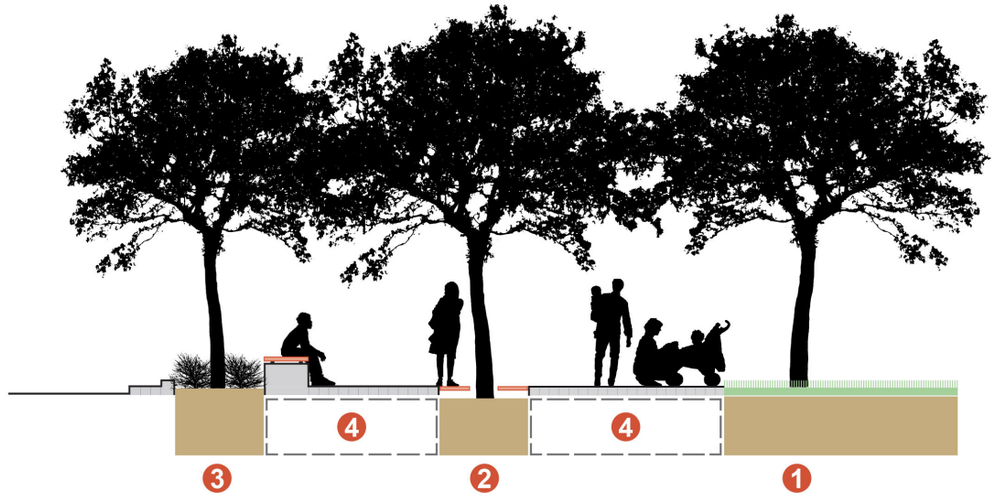


Figure 35: Planting typologies

1. Trees in open areas with large soil volumes
2. Trees in hard surface
3. Trees in open planters with protected edges
4. Potential soil cells where needed to achieve minimum soil volumes

Figure 36: Planting considerations

1. The central zone within open planters has year-round vegetation
2. Seasonal planting can be considered at the ends of planters
3. Cluster seasonal planters in areas of high pedestrian traffic, such as nodes, seating areas intersections and pathway accesses

Winter Maintenance Considerations

- Snow from the roadway is initially plowed to the curb on the driver's right. To allow for snow storage:
  - In the case of open planters, provide a minimum 1-metre offset from the face of the roadway curb to the face of the planter curb/wall.
  - In the case of hard surface planting, provide a minimum 1-metre offset from the face of the roadway curb to the edge of the tree grate.
  - For one-way streets, reduced snow storage space is required on the driver's left.
  - Offset tree trunks a minimum of 1.5 metres from the face of the roadway curb to reduce the impact of salt spray.
- Snow from the sidewalk and cycle track is initially plowed to the side closest to the roadway. To allow for snow storage:
  - In the case of open planters, provide a minimum 0.5-metre offset from the edge of the cleared width of sidewalk/cycle track to the face of the planter curb/wall.
  - In the case of hard surface planting, provide a minimum 0.5-metre offset from the edge of the cleared width of sidewalk/cycle track to the edge of the tree grate.
  - Offset tree trunks a minimum of 1 metre from the edge of the cleared width of sidewalk/cycle track to reduce the impact of salt spray.
- When snow storage areas are full, snow is removed to provide space for future snowfall events.
  - Sidewalk and cycle track snow storage areas are blown toward the curbside snow storage area using a sidewalk blower.
  - Snow in the curbside snow storage area is pushed onto the road using a full-sized road grader.
  - Snow is then blown into dump trucks using a large blower mounted on a full-size loader.

    - Plows do final cleanup to push the small amount of remaining snow back into the snow storage areas.
- Ensure soil cells are capped with a hard surface that is robust enough to withstand the weight of snow clearing and snow removal equipment.
    - On the roadway side of trees, this includes full-size road graders driving with their right tires on the snow storage buffer.
    - On the far side of trees, equipment is typically limited to sidewalk plows and sidewalk blowers.
- De-icing salt is used heavily. Plantings in areas that received runoff from travelled surfaces and snow storage areas must be salt tolerant.

Figure 37: Examples of open tree planters on Mackenzie Avenue

Soil

Soil is critical infrastructure for tree health and growth. It should mimic natural soils as closely as possible by minimizing compaction, absorbing water and nutrients, and promoting soil microorganisms and other biological processes.

- Provide 30 cubic metres of soil volume per tree. Where multiple trees have access to a large, connected soil volume, the total volume of soil should be 30 cubic metres per tree, but trees may be distributed anywhere within this soil volume.
- Maximum soil depth is 2 metres, but 1.4 metres is preferred for large canopy trees because feeder roots tend to be shallow.
- Soil cells should be used to increase soil volumes in urban conditions to meet the minimum 30-cubic-metre volume requirements, typically under sidewalk paving. Much of the street tree planting along the Boulevard should be retrofitted, over time, to have soil cells to maximize tree size and health.
- Add soil amendments including organic matter, bio char and mycorrhizal inoculation.
- Add nutrients to soil over time as they are depleted.

Species

- Select species that are adapted to the National Capital Region's climate and will be resilient to future climate conditions, with a preference for native species. Non-endemic species may be considered where they are not invasive and where they grow well in urban environments.
- Invasive species must not be planted.
- Select tree and vegetation species that are tolerant of salt, drought and soil saturation.
- To promote biodiversity and increase resiliency in the face of pests and diseases, plant as many species as possible. This applies to planting of all types, from trees to ephemerals. A diverse planting palette will not be devastated by a disease that targets a particular species. A diversity goal for the Boulevard is as follows:
    - A maximum of 20% of trees should be of the same species.
    - A maximum of 40% of trees should be of the same genus.
    - A maximum of 60% of trees should be of the same family.
- Intermix species within rows of trees. Do not create areas of monoculture.

- Plant species with different growth rates, including fast-growing species, to promote a full urban canopy in the near and long terms.
- Plant species for ecosystem services including stormwater uptake, shading, food and pollinator potential, and habitat.
- Plant species with different form, height, branch pattern, leaf index, texture, colour and flowering habits to promote year-round interest, and enhance seasonality.
- Where conditions are favourable, introduce coniferous trees into the urban canopy to promote year-round greening and biodiversity. Ensure they are limbed up to maintain clear pedestrian views at ground level.

Bioswales

- Bioswales may be considered in locations with enough available space where they will not interfere with pedestrian use of the Boulevard.
- Clearly demarcate the edges of bioswales with curbs or other landscape elements. Grates, drains and other hard infrastructure should be designed to be compatible with the Confederation Boulevard family of furnishings.
- Given the diversity and growth habit of bioswale planting, frequent maintenance and pruning are high priority.
- Bioswales should be carefully considered before they are installed in highly urban segments, in high pedestrian traffic locations or adjacent to Parliament Hill. They should be installed only if they do not interfere with pedestrian routes or gathering, if they do not dilute the urbanity of the place or context, if they are safe, and if maintenance and upkeep are of an elevated standard, particularly removal of litter and weeds, and replacement of dead planting.
- Ensure each bioswale's design is compatible with the local soil conditions, which are highly variable across the Boulevard. Bioswales in areas with clay or shallow rock will have limited infiltration and must rely more heavily on evapotranspiration.
- Size bioswales to handle smaller, more frequent rainfall events as these contain higher concentrations of pollutants.
- Consider designs that allow roadway runoff to be diverted away from the bioswale in winter months to reduce the impact of de-icing salt on plantings.
- Consider including sediment basins at inlets to ease cleaning operations.
- When considering bioswales, ensure any financial analyses take into account savings on watering that would be required for traditional planting areas, as well as the benefits to the stormwater management system.

Figure 38: Bioswale on Woodland Drive in Vancouver, BC

1. Sediment basin
2. Weir to slow the flow of water

4.2.7 Surface and Material Treatments

The pedestrian paving treatments along Confederation Boulevard are an important component of the Boulevard's image. A consistent palette and hierarchy of paving materials unify and elevate the streetscape character while also providing wayfinding cues that help pedestrians recognize and navigate the Boulevard. A 'red carpet' of paving encircles the Linking Ring to create a unique and recognizable character for the centrepiece of the Capital.

Principles

- Consistently apply Confederation Boulevard's family of high-quality, durable paving materials including granite accents and details.
- Reinforce the hierarchy of the Linking Ring and extensions with paving materials, colour and details:
  - Paving materials along the Linking Ring are red in colour to celebrate the centrepiece of the Capital.
  - Paving materials along the extensions are grey in colour, creating a transition to the adjacent urban districts and neighbourhoods.
- Prioritize high-quality and durable paving selections in prominent pedestrianized areas, with lower-cost options applied along peripheral zones.

Paving Typologies

There are several different palettes of surface materials that create contextually appropriate paving treatments in specific locations along the Boulevard.

Linking Ring

All granite curbs and unit paving along the Linking Ring should be red in colour to reinforce the 'red carpet' treatment surrounding the centrepiece of the Capital. Granite curbs should have saw-cut faces and chamfered edges, as well as a poured concrete gutter.

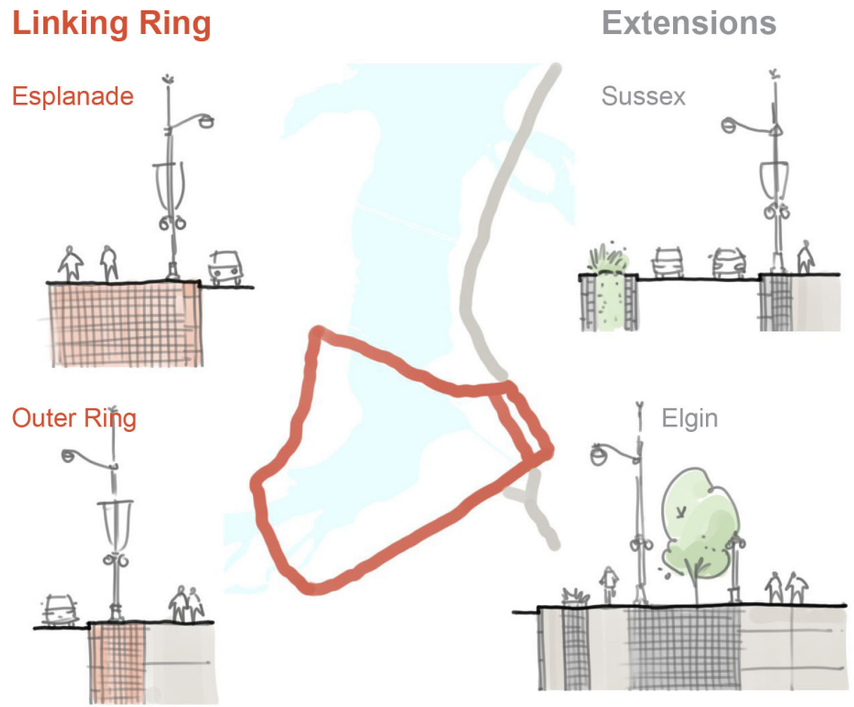


Figure 39: Diagram of paving typologies along the Boulevard

A. Esplanade

The surface treatment is continuous unit paving across the sidewalks, from the granite curb to the adjacent frontage. Design characteristics include the following:

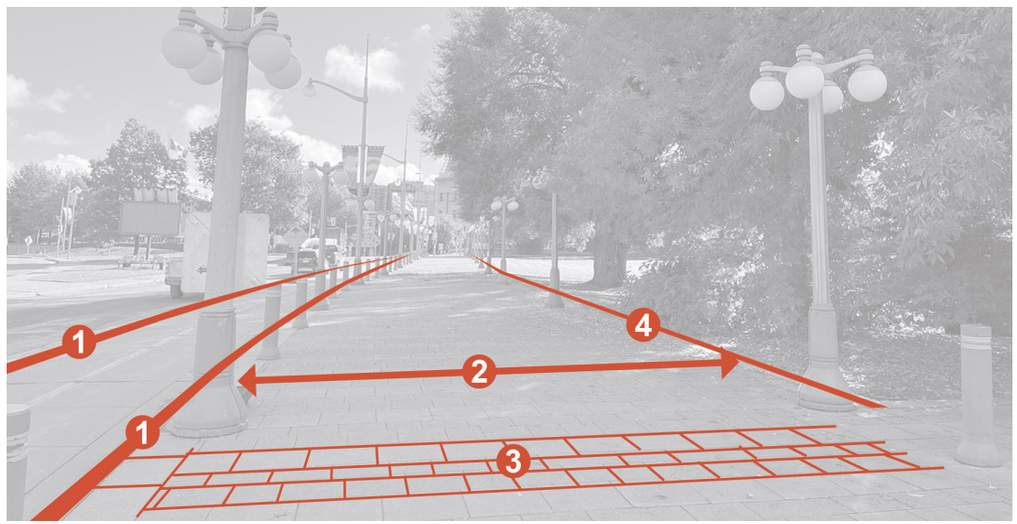


Figure 40: Surface treatments of the Esplanade

1. Red granite curbs along edge of carriageway and between the cycle track and sidewalk
2. Red unit paving from the curb to adjacent use
3. Banded unit paving pattern
4. Red granite edging or accent band where the Esplanade is adjacent to green spaces

B. Outer Ring

The primary sidewalk material is concrete, complemented by an accent band of unit paving adjacent to the granite curbs or within the tree and furniture zones. The width and placement accent paving may vary based on the design context, space permitting. Design characteristics include the following:

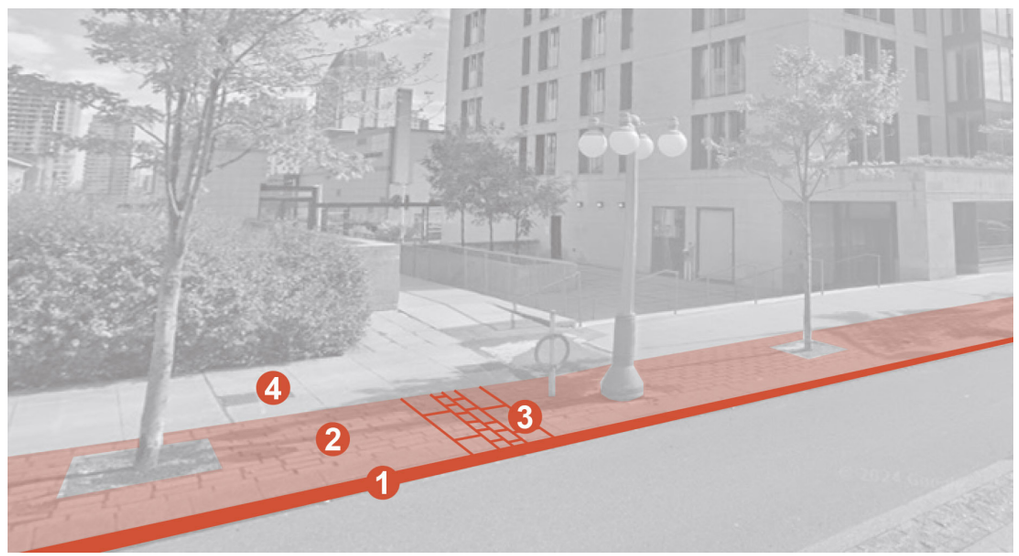


Figure 41: Surface treatments of the Outer Ring

1. Red granite curbs along the edge of the carriageway
2. Red unit paving in accent band in the tree and furniture zone
3. Banded paving pattern
4. Concrete sidewalks

C. Extensions

Extensions serve as ceremonial links and processional routes connecting to the Linking Ring. They require consistent, high-quality surface treatments and detailing, but possess a subdued character that does not detract from the legibility of the Linking Ring. All paving materials along the extensions should be grey in colour, in contrast to the red of the Linking Ring. Provide unit paving as an accent band adjacent to the granite curbs, or within the tree and furniture zones. The width and placement accent paving may vary based on the design context, space permitting. Design characteristics include the following:

- Granite curbs should have rough/split vertical faces, without gutters.
- The primary sidewalk material is concrete.
- Accent paving may vary based on the design context, space permitting.

Figure 42: Surface treatments of the Extensions

1. Grey granite curbs along the carriageway and between the cycle track and sidewalk
2. Grey unit paving in accent band in the tree and furniture zone
3. Banded paving pattern
4. Concrete sidewalks
5. Grey granite curb or accent band where the sidewalk is adjacent to green spaces

Additional Guidelines

Granite Accents

- Use granite strategically in prominent high-wear areas to achieve a consistent, durable streetscape character.
- Consistently integrate granite curbs and accent paving along all segments of the Boulevard, such as:
  - Continuous granite curbs and bullnoses at medians and traffic islands.
  - Granite sets and cobbles as accent paving within medians, lay-bys, and tree and furniture zones.
  - Granite edging and soldier courses along the back of the curb, and as accent paving in areas of high quality and importance.
  - Granite edging, accent bands and soldier courses should define edges and aprons along buildings, walls and the back of the curb, as well as the back of the sidewalk (especially adjacent to green spaces where there are no other defining elements such as buildings or walls).
- Prioritize broader use of granite paving in strategic locations:
  - Primary Nodes are preferred locations for granite unit paving as the primary paving field, or as an accent.
  - Consider granite unit paving accents at other special locations such as Secondary Nodes, bridges and public art locations, as well as in areas requiring high durability.
  - As accent paving and inlays at nodes and public art locations.

Figure 43: Granite cobble accents in medians and roundabouts

Walking Surfaces

Walking surfaces may be either unit paving or poured-in-place concrete, depending on the context and paving typology.

- Along the length of the Esplanade, apply continuous unit paving across the pedestrian (sidewalk) zone.
  - The paver profile of sidewalks, gathering spaces and other primary pedestrian routes must provide a smooth rolling surface for users of mobility devices.
- Consistently apply precast concrete unit pavers of adequate thickness with consistent dimensions, patterning and colour to control quality and replaceability.
  - Unit paving should be detailed for long-term durability following site-specific geotechnical recommendations and appropriate sub-grade preparation.
  - Sidewalk unit paving consists of repeating patterns of banded rows of varying dimensions.
- Where driveways, laneways or bike lanes cross or interrupt the walkway surface, apply granite edging and contrasting unit paving patterns to distinguish them visually.
  - Consider thick granite paving as the most durable paving solution, in areas where unit paving is subject to high wear, impact or accelerated deterioration.
- Along the Outer Ring and extensions (i.e. Elgin Street and Sussex Drive North), provide a simplified, cost-effective palette of paving materials consisting of poured-in-place concrete sidewalks with granite curbs and paving accents within adjacent tree and furnishing zones.
- Provide a linear saw-cut concrete jointing pattern, perpendicular to the street edge, reminiscent of the banded unit paving pattern of the Esplanade.

Figure 44: Example of unit paving pattern changes at driveways

Crosswalks and Intersections

- All intersections will feature pedestrian paving treatments that signal pedestrian priority and the continuity of the pedestrian clearway zone through the intersection. Typically, these consist of poured-in-place concrete crosswalks with a custom scoring pattern.
- Provide white painted lines on each side of crosswalks for visibility and contrast. Avoid painted asphalt crossings subject to fading.
- Special intersections, such as at Primary and Secondary Nodes, or those with high pedestrian traffic, will have enhanced paving treatments. Typical design objectives are as follows:
  - Provide continuous unit paving within pedestrian crosswalks across roadways and driveways, particularly on the Esplanade leg, and potentially all legs.
  - Demarcate crosswalks through paving pattern, colour and visual contrast, rather than paint. In certain instances, paint may be used in addition to paving techniques.
  - Select enhanced materials at the intersection. Use contrast and variation in colour, texture, finish, material and pattern to clearly delineate pedestrian, active transportation and carriageway zones. For example, asphalt cycle tracks may change to concrete or unit paving in the intersection.
- Provide tactile wayfinding for accessibility. Surface elements such as tactile walking surface indicators should be high quality, durable, compatible with the material and colour family of the Boulevard and integrated with the paving pattern.
  - In concrete paving, tactile walking surface indicators should be cast iron.
  - In granite unit paving, tactile walking surface indicators should be granite.
  - To delineate surface elements such as cycle tracks, crosswalks and tactile walking surface indicators, select paving material, colour, surface texture and pattern to harmonize with the paving palette while providing appropriate levels of contrast for visual perception and accessibility.
- Consider raised intersections with elevated, flush crosswalks at locations of high pedestrian priority, such as mid-block crossings or locations with high pedestrian traffic. Design carriageway ramps at slopes appropriate for the target vehicle operating speed.

Carriageway and Bike Lanes

- Minimize the overall extent of asphalt paving surfaces by reducing lane counts, minimizing lane widths, reducing corner radii and using other traffic calming techniques.
  - Where curbside lay-by lanes are required, use granite accent paving.
- In punctuated locations, consider continuous unit paving across the right-of-way, including sidewalks, carriageway, tramway and bike lanes, to create plaza-like treatments.
  - Consider flush plaza-like surfaces with continuous unit paving across the right-of-way, and elegant contrasting paving patterns and treatments to demarcate travel lanes in pedestrian priority areas.
  - At prominent crossings, consider unit paving in the centre of the intersection, including the carriageway and cross-rides.
  - Ensure high-durability paving profiles capable of vehicular loading, such as interlocking unit paving systems or extra-thick granite sets.

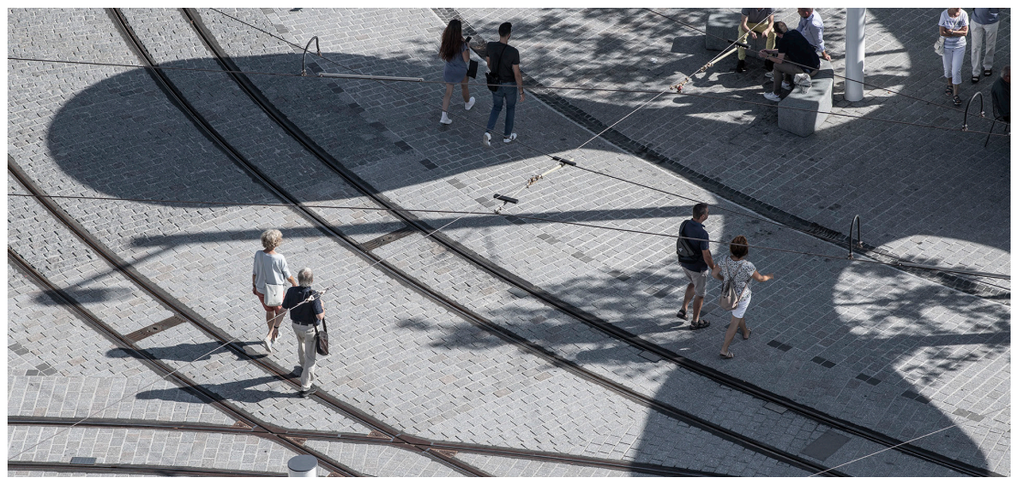


Figure 45: Example of unit paver plaza treatment across the right-of-way

- Provide tactile guidance and/or visual contrast along flush edges that are shared with any type of vehicle.
  - Provide a low curb along off-street cycling facilities adjacent to sidewalks. Sidewalks should be higher than cycling facilities.
  - Ensure materials and markings provide visual contrast while staying consistent with the Boulevard's family of paving treatments.
- Where dedicated bike lanes or cycle tracks are provided along the Boulevard, do not interrupt sidewalks and pedestrian surfaces with asphalt cycling lanes. Provide contrasting pedestrian surface materials such as concrete or unit paving at cycle lane crossings to signal pedestrian priority.
- Where needed, apply pedestrian-scaled decals and markings to cue cyclists within the public realm. Avoid traffic-scaled stencils outside the carriageway.

4.2.8 Municipal Infrastructure

Various elements of municipal infrastructure within the Boulevard impact the streetscape character. These include lighting, traffic signals, utilities and transit shelters. To ensure a high-quality, coordinated streetscape image, the NCC will work with municipalities and utility providers to ensure these elements are compatible with the Boulevard family of furniture.

- Continue to ensure that hydro wires are located underground.
- Traffic poles and signs should be painted Confederation Boulevard grey, including poles, arms and backboards. This includes joint-use poles and high-mount intersection lighting and traffic signals. It is understood that the front face of traffic signal displays must use standard colours in accordance with applicable provincial regulations.
- Street naming signs are to employ the unique sign design treatment that has been established for the Boulevard.
- Above-grade utility cabinets should be compatible with the Boulevard through colour and placement in unobtrusive locations, and with potential public art treatments.
- It is preferred that the future tram not have overhead catenaries.
- Provide electrical connections for temporary programming and events at regular intervals along the Boulevard, in areas of high pedestrian traffic and in the nodes.
- Consider water and sanitary connections to support temporary programming and food vendors.
- Transit shelters and tramway design impact the Boulevard's image and the quality of the experience more significantly than other municipal infrastructure. Many considerations for the location and design of shelters are governed by transit agencies and other stakeholders. These guidelines provide direction for the shelters and the adjacent sidewalks in terms of their compatibility with the Boulevard's furniture family and their potential to provide pedestrian amenity beyond their public transit function.
- Take a comprehensive approach to designing the context of the transit stop. The approach should consider how the waiting area can benefit transit users and passersby alike. Consider additional amenities such as supplementary seating, shade from street trees, waste receptacles and bike parking.
- Transit shelters and supporting infrastructure should have an elevated design standard beyond the utilitarian. They should be beautiful elements in the streetscape. As outlined in these guidelines, the Confederation Boulevard family of furnishings has timeless design character applied consistently throughout, which must influence the design of transit infrastructure along the Boulevard.
- Develop a Boulevard-specific design standard for transit shelters and poles that matches the design characteristics of Confederation Boulevard's family of furnishings. Design elements from the Boulevard that must be applied to transit shelters and other infrastructure include the following:
  - A designed appearance that is specific to and matches the design language of Confederation Boulevard and that is visually distinct from municipal shelters (though they may share design elements).
  - Integration of multiple design functions, for example, shelters that include built-in seating, signage, wayfinding, lighting and information display.
  - Base-middle-top design to the overall massing of the shelter, as well as columns, supports, weather protection and seating.
  - A distinct roofline profile that is created through shape (for example, curved, sloped, green roof) and that provides a generous overhang to protect pedestrians from the elements.

Figure 46: Examples of shelters that have an elevated design standard and provide additional amenities

- Use of established Confederation Boulevard design elements, for example, seating with curved supports, wood slats and circular armrest design, or railings with repeated vertical divisions and open metalwork with cross patterns ('X') and circles ('O').
- Use of Confederation Boulevard colours (tones of grey) and materials (steel, wood, concrete, granite, bronze/copper accents).
- Consider public art integrated into the design of shelters and infrastructure, or nearby.

- Consider providing larger transit shelters to provide additional amenities such as shade, seating, heating and weather protection.

4.2.9 Interfaces with the Boulevard

The interface of adjacent uses of and experiences with the Boulevard is an important contributor to the streetscape character; as a result, they should have a positive relationship. There is a range of conditions adjacent to the Boulevard, from open space to buildings.

Open Spaces

- Maintain views of landmarks from defined view locations and corridors. Avoid planting screening vegetation in these locations (vegetation that is at a height where it blocks pedestrian views, generally 1 to 2.5 metres from ground level). Vegetation should be low groundcover or high canopy trees.
- Maintain character-defining elements of open spaces.
- Ensure connections to adjacent pedestrian routes, including sidewalks, pathways and trails, are clearly visible from the Boulevard. Where appropriate, define and frame entrances and thresholds with landscape elements such as low walls, columns, gateways, paving details and planting.
- Where appropriate, define the edges of adjacent open spaces with low walls, fencing or landscaping.

Urban Conditions

- Buildings adjacent to the Boulevard should be designed with the main facade toward the Boulevard. They should have a prominent entrance at the facade with a clear pedestrian connection between the Boulevard and the building.
- Provide active uses at ground level where possible, for example, retail, cafes, lobbies and common spaces.
- In general, building design should be highly interactive at street level with frequent entrances and windows to promote indoor-outdoor connection.
- Plazas and patios are encouraged adjacent to the Boulevard. They should have a seamless connection with the sidewalk and clear views into the space.
- If required, fences should be of a high design standard and compatible with the Confederation Boulevard family of furnishings. Open metal fences are preferred, set atop a stone base.

- Minimize vehicular driveways and parking along the Boulevard. Under no circumstances can there be parking spaces between the building and the sidewalk. Any parking, where provided, must be on nearby laneways or on adjacent streets and otherwise contained in underground structures. If driveways are necessary, minimize their impact on the Boulevard:
  - Minimize their size and width.
  - Minimize turn radii.
  - Continue pedestrian surface treatments across driveways (e.g. unit paving) to signal pedestrian priority. Include visual and tactile cues to mark driveways.
  - Maintain sidewalk and cycle track grades, limit driveway ramp to width of amenity zone, or otherwise keep as narrow as possible.
  - Where screening is provided or deemed necessary by the NCC, it must be in masonry of an architectural style and materials identical or as close as possible to the principal building.

Figure 47: Continuous sidewalk and cycle track across driveway, with ramp limited to width of amenity zone and minimized turn radii

4.3 Security Considerations

Public safety and the security of national sites and institutions are highly important. Certain locations along Confederation Boulevard will require site-specific safety and security installations to keep the public realm open and safe, while mitigating risks and threats.

Many security techniques can be employed based on site-specific context and need. Security measures should be planned and designed to integrate within the broader urban context, through coordinated site planning principles that minimize negative impacts and maintain the safe, public and dignified character of Confederation Boulevard.

Principles

- Plan and design security installations as part of a layered, coordinated approach to screen, control and mitigate risks with minimal impact on the quality and experience of the public realm.
- Design security installations and elements to blend harmoniously with the Boulevard's streetscape palette and/or be fully integrated into the frontage of adjacent sites and buildings.
- Ensure pedestrians and cyclists can move freely along their respective routes, without bottlenecks or significant deviations.

Figure 48: Integration of hostile vehicle mitigation into the streetscape

1 Hostile vehicle mitigation techniques that enhance streetscape character, adding to pedestrian amenity

Guidelines

Public Safety

- The public sidewalks along the Boulevard and their adjacent public spaces should remain clear, permeable and welcoming to all users.
- Employ Crime Prevention Through Environmental Design principles to the design of the Boulevard and adjacent uses to provide a safe, comfortable public environment both day and night.
- Maintain clear sight lines along the Boulevard, and to and from adjacent uses, including buildings and open spaces, to promote natural surveillance.
- Locate active uses, entrances and pedestrian connections to maximize pedestrian activity on the Boulevard.
- Set out clear responsibilities for designing and maintaining the Boulevard and adjacent uses so it remains well kept and well lit.

Layered Approach

- It is recognized that there are locations along the Boulevard where security considerations are essential. Conduct location-specific security studies to evaluate security requirements. Coordinate security perimeters to minimize stand-off distances with the right-of-way, and employ interventions that minimize the impact on the public realm while achieving required security outcomes.

    - For high-security sites and buildings located along the Boulevard, use targeted hardening techniques directly integrated into the building and landscape design, such as wall thickness and massing configuration, where possible.
    - Where broader security perimeters and stand-off distances are required, use coordinated security strategies to provide layered, contextually appropriate screening and security installations within the public realm.
- Where vehicle screening or restricted access is required within or adjacent to the streetscape, plan and clearly demarcate private and public zones through design strategies such as defined edge delineation/perimeter circulation routes, and vehicle screening and access control points.
- Integrate security measures into site planning, transit/transportation planning and building design. For example, locate areas of security concern away from the Boulevard, and consider the locations of entrances, windows, utilities and HVAC in relation to the Boulevard.

Security Perimeters

- Where permanent security perimeters and delimitations are required, such as hostile vehicle mitigation, integrate elements into the streetscape treatment. For example:
    - Use measures that are materially and aesthetically suitable to the context, and appropriate to the security requirements (e.g. K-rated street furniture).
    - Co-locate elements within curbside amenity zones or along property boundaries and edges using, for example, heavy curbs, planters, seating, gates, walls, stairs, ramps or other physical landscape features.
    - Design barriers as public art, attractive visual elements or functional street furniture.
- Limit use of security bollards to situations where integrated measures are not practical or do not allow pedestrians to get around easily and conveniently. When used, security bollards should have an elevated design standard that is compatible with the Confederation Boulevard street furniture family.
- Where perimeters are intended only to apply to certain modes of travel (e.g. motor vehicles), be sure they remain permeable to other modes (e.g. active modes).
- If security bollards and barriers are needed only occasionally (e.g. during special events), they should be designed to be retractable or removable to disappear from view when not in use.

Vehicle Control Points

- Where public vehicles need to be screened along or adjacent to the Boulevard, design clear routes for private vehicles, distinct from those of accredited users, security personnel and first responders.
- If operable vehicle barrier systems (e.g. retractable bollards, turntables, vehicle traps) are needed within or adjacent to the right-of- way, ensure they are:
    - Coordinated with adjacent security perimeters to minimize security devices; and
    - Appropriate to the Boulevard's character, visually unobtrusive, and suited to local winter conditions.
- If accessory installations (e.g. security kiosk, access control booth, gates or anti-ramming devices) are deemed necessary, custom design and detailing may be required to remain compatible with the Boulevard's character and operational needs.

Other location-specific security measures may be required based on detailed site studies. Any security installations should be assessed to determine applicable threats and appropriate countermeasures, and should be planned in keeping with the dignity and principles of the Boulevard.

5 Commemoration, Interpretation and Public Art

5.1 Permanent Works

Commemoration, interpretation and public art are among the most important features of Confederation Boulevard. Part of the fundamental purpose of the Boulevard is to provide a context for and accentuate the importance of commemoration, interpretation and public art that relates to themes of national significance. The Boulevard is not the only location for commemorations and public art of national significance in the Capital.

These guidelines provide urban design directions for commemoration, interpretation and public art from a physical and spatial perspective, such as where it should be positioned and how it should relate to the Boulevard. The guidelines do not address the selection process, themes or design of the commemoration, interpretation or public art itself, which is a shared responsibility led by Canadian Heritage, with the support and collaboration of other stakeholders including the NCC. Refer to the Policy on National Commemorative Monuments on Federal Lands in Canada's Capital Region (2016) and up-to-date PCH and NCC policies on commemoration, interpretation and public art.

Commemoration, interpretation and public art have a role beyond their commemorative, interpretive and artistic expression. They are important markers in the urban landscape that establish a sense of place, provide landmarks to orient people within the city, and engage with public spaces and streetscapes.

Commemoration, interpretation and public art can be very diverse in style and expression, so a flexible approach is essential when considering their integration with Confederation Boulevard. This section provides design strategies that have been employed for integrating different types of commemoration, interpretation and public art; they are not the only strategies and should not limit creativity of expression.

Location

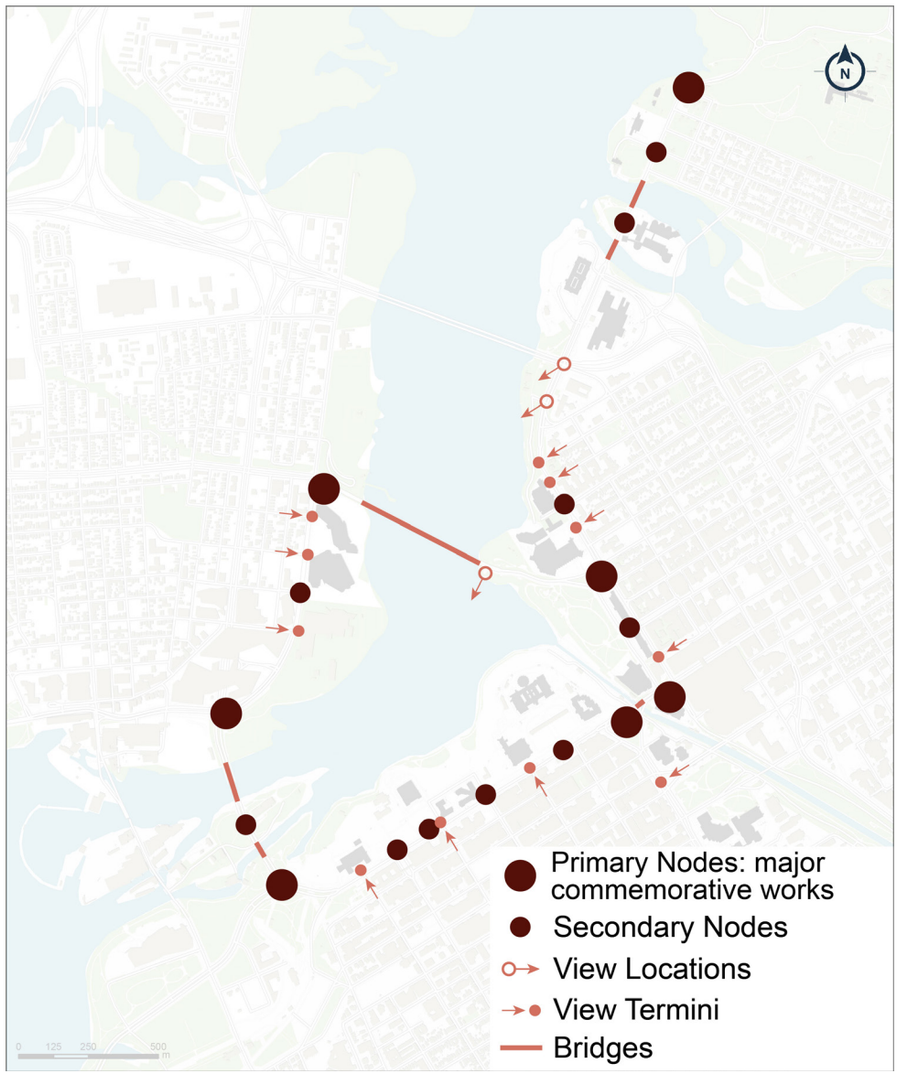


Figure 49: Potential locations for commemoration, interpretation and public art

Each Primary Node is intended to have an association with a major commemorative work, either directly located within the node, or where the node functions as a gateway to the commemoration. Primary Nodes are intended for commemoration, interpretation and public art of a grand urban scale.

Secondary nodes are for smaller-scale commemoration, interpretation and public art. Secondary Nodes are appropriate for commemoration, interpretation and public art that is integrated with the surrounding urban fabric and furnishings, as well as stand-alone work. Secondary Nodes may or may not have commemoration, interpretation or public art; this will be determined by the site selection process on a case-by-case basis.

Other special locations, such as view corridors or small public spaces, have similar opportunities for smaller-scale commemoration, interpretation and public art.

Segments should generally be limited to temporary installations of commemoration, interpretation and public art, or to elements of smallest scale only, but they are appropriate for permanent interpretive elements. The segments are important in defining the character and rhythm of Confederation Boulevard. Art works that accumulate in the segments would undermine the visual continuity of the Boulevard, as well as dilute the impact of works at the Primary and Secondary Nodes. Already, many works of commemoration and public art are located on adjacent lands that are visible from the Boulevard.

Given the strong demand for sites along Confederation Boulevard, and that commemoration, interpretation and public art is typically accumulative, a strategy is needed to avoid cluttering and overwhelming the Boulevard over time. This may be accomplished through the following:

Differentiation – each work of commemoration or public art is given its own space, allowing users to view and engage with it. This can be done by placing works out of the immediate viewshed of one another, or by providing spatial breaks between works through landscaping, buildings, streets or other separators. The scale of each work will influence its viewshed. Smaller works may be closer together, as they have smaller viewsheds. Larger works may be further apart to provide breathing space.

Grouping – some types of commemoration or public art may be grouped geographically. They have the potential to become a group of works, in effect becoming one larger entity, as each work has a relationship with the others and with the surrounding environment.

Type

There are many types of permanent commemoration, interpretation and public art, including those that are stand-alone sculptural objects, and those that are integrated with something else, such as a building or landscape. The commemoration could even be a public space itself. Similar design strategies will apply to both stand-alone and integrated work in terms of where they are placed and their relationship to the Boulevard.

Integrated work offers flexibility to incorporate commemoration, interpretation and public art in space-efficient and multi-functional ways. It can be considered:

- Where space within the right-of-way is constrained, such as along Wellington Street or the south portion of Sussex Drive.
- In the facade design of buildings at Primary Nodes, to enhance the node as a marker or turning point in the Boulevard.
- Within the paving, furniture and amenities of public spaces.
- In the design of transit and transportation infrastructure such as bridges and transit facilities.

Figure 50: Stand-alone public art

Figure 51: Integrated public art

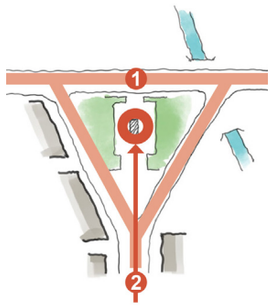
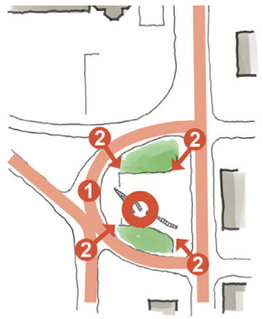
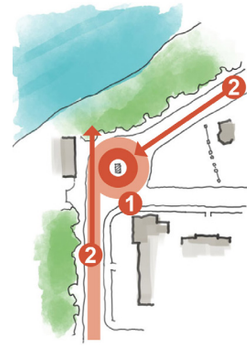
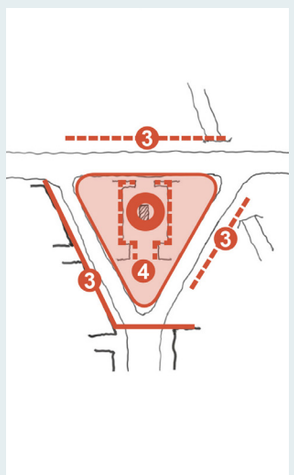
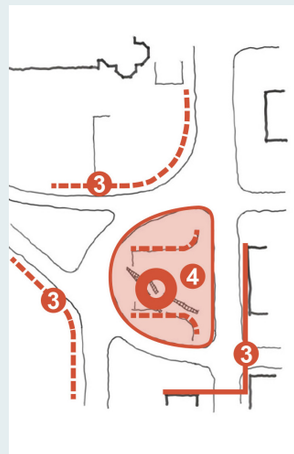
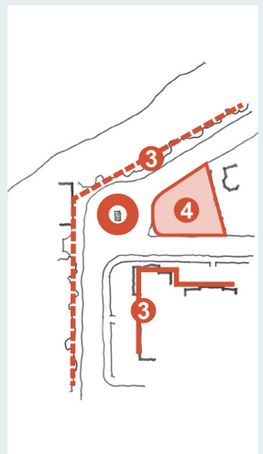
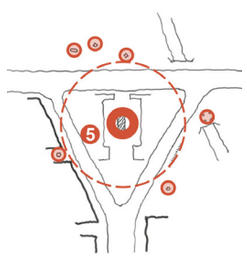
Existing Interpretation Along the Boulevard

Interpretation is all about the visitor experience: to engage, inform, educate and inspire visitors. It is a means of enriching their understanding of a place, and provoking thought and reflection on its meaning. Confederation Boulevard includes a program of orientation and interpretation consisting of a series of bronze map models and 25 interpretation panels divided into two themes: 'views and street views' and 'sites and institutions.' The latter derives from the Confederation Boulevard Streetscape program, where interpretation panels were positioned at key locations along the Boulevard with views considered to share stories about the Capital region and its people. There is an accompanying print-based Confederation Boulevard Discovery Guide with walking and cycling tours and points of interest.

Design Principles Exhibited by Existing Commemorations and Public Art at Primary Nodes

The Confederation Square, Peacekeeping Monument and Rideau Hall nodes have established designs that include major commemorative monuments as well as adjacent public spaces. These three nodes employ similar design strategies for positioning the commemorative elements and their relationship to the Boulevard. These strategies can serve as design principles for future commemorations and public art. Refer to **Figure 52** for a depiction of these strategies, and **Table 1** for corresponding descriptions.

Table 1: Design strategies for commemorative elements at nodes, Figure 52: Design strategies for commemorative elements at nodes

		Confederation Square		Peacekeeping Monument		Rideau Hall		Design Principle
1	**Relationship to Boulevard**	Confederation Boulevard splits around the Node, emphasizing the centre.		Confederation Boulevard encircles the Node. The Node acts as a hub or pivot for different Segments of the Boulevard.		The roundabout creates a sense of place and termination of the Boulevard.		Commemoration within Nodes should be deliberate placemaking gestures in the urban fabric.
2	**Views**	From the south, the National War Memorial provides a strong visual marker terminating the view up Elgin Street. Acts as a major landmark along the Boulevard.		The Peacekeeping Monument is viewed from many locations around this complex intersection. Forms a pivot or junction marking several Segments.		Terminal view of the Queen Elizabeth II statue from the east acts as a gateway to the Boulevard. View from the south is not revealed until arrival at the roundabout, which helps turn visitors towards the Rideau Hall plaza.		Views to the commemorative elements from the surrounding urban fabric should be emphasized in design.
3	**Frame**	Buildings frame part of Confederation Square. The Rideau Canal landscape and Parliament Hill frame the other edges. Trees frame the National War Memorial.		Buildings frame part of the Peacekeeping Monument Node. Major's Hill Park and the National Gallery forecourt frame the other edges. Trees frame the monument.		Buildings frame part of the Rideau Hall Plaza. The river valley landscape (trees) frames the other edges.		A strong, well-defined treed edge establishes a sense of place and frames public space. Buildings, and the surrounding Capital Landscape, should be emphasized in placemaking.
4	**Public Space**	In the centre, surrounding the National War Memorial.		In the centre surrounding the Peacekeeping Monument. Adjacent forecourt to National Gallery.		Adjacent forecourt to Rideau Hall grounds.		Commemorative elements that are interactive (able to be touched, or part of ceremonial events) should be surrounded by public space. Public spaces connect adjacent Capital landscapes and destinations.
5	**Other commemoration and public art**	The National War Memorial (the Response) functions as the major commemorative gesture, with clear visual prominence in the centre of Confederation Square. The Tomb of the Unknown Soldier and the Valiants Memorial are supportive but are significantly smaller in scale.		The Peacekeeping Monument is alone in its space. Other public art is across the street.		The Queen Elizabeth II statue is the only commemorative element.		Ensure the primary, monumental commemorative work is framed in its own space, and that other art and streetscape elements do not compete.

Future Commemorations and Public Art at Primary Nodes

The Primary Nodes that have not been developed with major commemorative, interpretive or public art features can follow the design principles exhibited by the three that have been developed. The Primary Nodes are not the only locations in the Capital where major commemorations, interpretation and public art may be developed. A key goal for the undeveloped Primary Nodes is to deliberately shape a public space within the urban fabric. Approaches used to unlock this potential may include reorganizing the right-of-way and removing some of the vehicular travel lanes. Creating new, larger public open spaces provides an appropriately scaled setting for monumental commemoration, interpretation and public art. Ideally, the nodes' development should be fully integrated with the development of commemoration, interpretation and public art, meaning they are developed together.

The undeveloped Primary Nodes vary from the developed nodes in their spatial configuration. They are located at important intersections and turning points and must be integrated into the existing urban fabric and Boulevard context. The specific location for commemoration, interpretation, public art and public gathering space within the node must be selected to ensure sufficient space, safe pedestrian access and a comfortable environment for those visiting the node. This offers the opportunity to introduce new relationships with the streetscape of the Boulevard.

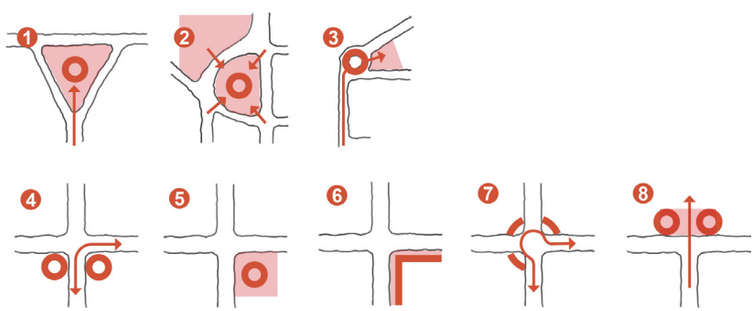


Figure 53: Relationships of commemorations, public art and public gathering space to Primary Nodes

Developed nodes

1. Confederation Square: Public space and commemorations in centre of Boulevard. View terminus
2. Peacekeeping Monument: Public space and commemorations in centre of Boulevard. Multiple blocks and view opportunities
3. Rideau Hall: Commemorations in centre of Boulevard. Public space adjacent. Roundabout rotates the view

Undeveloped nodes – potential design strategies

5. Commemorations act as a gateway
6. Public space in one quadrant hosting the commemoration
7. Linear public space and linear commemoration
8. Commemorations are located on multiple quadrants and rotate the view
9. Public space and commemorations are located beside Boulevard and frame a Capital view

Guidelines

The following guidelines present typical strategies for integrating commemoration, interpretation and public art along the Boulevard and within nodes. While they define generally desirable relationships, commemoration, interpretation and public art vary in nature, meaning that the guidelines should be interpreted with flexibility, even breaking the rules where warranted. For example, while it is appropriate for commemoration, interpretation and public art to be the focal points of their context and be placed where they are highly visible, in some cases the artistic themes may be based on surprise, misdirection or having a minimal impact on the landscape, where a different approach needs to be explored.

- Commemoration, interpretation and public art can act as focal points of the broader urban fabric or of their immediate surroundings. They should be placed where they are highly visible from nearby streets and public spaces. Preferred locations include:
  - Along or at the terminus of view corridors
  - As focal points within public spaces
  - At gateways, major intersections and corners
- Consider other Capital view corridors when placing commemoration and public art to preserve views of Parliament Hill, the Ottawa River and other landmarks.

- Sites for commemoration, interpretation and public art should be compatible with the scale of the work. Generally, the larger the work, the greater the space needed to view and frame it. Large works should not overwhelm the urban context, and smaller works should not get lost. The design of the landscape frame can establish a contextual scale in balance with the art and separate the spatial zones from which different commemoration and public art is viewed.
- Commemoration, interpretation and public art should be made accessible from surrounding sidewalks, crosswalks, trails and public spaces by providing multiple routes and connections to it or to the space it is set within.
- Provide opportunity for the public to approach and engage with the commemoration, interpretation and public art. 360-degree viewing and access is preferred. In some instances, the direct experience of touching and climbing is appropriate.
- Nodes should be designed taking into account the four-season experience of commemoration, interpretation and public art.
- Major commemorations at the Primary Nodes will be focal points from a cultural perspective and should include enhanced amenities that support elevated public access, enjoyment and contemplation:
    - Provide ample seating on all sides, with options in shade and in sunshine.
    - Site the major commemoration to provide a ground or field around it that sets it apart and gives it pride of place, for example, a plaza space, a large plinth or a water feature.
    - Other commemorative or public art elements in proximity to the major commemoration, particularly within the ground or field surrounding it, should be of a scale and character that complements the primary commemorative element, such as supporting works, benches, lighting, signage and dedications. These smaller-scale elements should not obstruct views of or crowd the primary commemorative element.
    - Identify the ceremonial needs around major commemorations to size public gathering spaces appropriately, in terms of both crowd size and supporting programming needs.
    - Develop a site-specific lighting strategy for the commemoration and adjacent public space. Generally, a wash of light on commemorations, without the visual clutter of light fixtures, is preferred.
    - No on-site parking is to be provided. Off-site arrangements must be made for any identified need for such parking. Discreet lay-bys along an abutting side street may be considered if appropriate.
- Position commemoration, interpretation and public art in a way that minimizes visual clutter from traffic signs, utilities and other functional elements; consider moving signs, utilities and parking away from the work.

Interpretation

All signage and interpretive elements for commemoration and public art should be accessible to all users, employing best practices in graphic design and communications focusing on clear layout, legibility and consistency of design elements.

Best practices in universal accessibility must be considered through tactile elements, braille, auditory options and others.

Interpretive media should be located near, but not crowd, commemoration and public art.

Permanent interpretive elements should be built using high-quality materials and be compatible with the furniture palette of the Boulevard, including the continued use of bronze for special features. The existing interpretive panels on the Boulevard have precise specifications. Refer to the Confederation Boulevard Interpretation Catalogue.

Integrate alternate techniques of interpretation delivery, such as live interpretation (guided tours or demonstrations), leveraging digital tools such as websites and apps (self-guided walking tours, audio tours or virtual reality), multimedia presentations, temporary exhibits and the like. These tools enrich the visitor experience, provide diverse choices for interpretation and reduce barriers to understanding. Well-integrated digital interpretation using appropriate modern technologies can improve accessibility and increase engagement of younger generations.

5.2 Temporary Installations

Non-permanent commemoration, interpretation and public art include temporary art installations, events, exhibitions, performances and other short-duration experiences. Temporary installations may last for hours or months. While they should be mindful of the design principles that apply to permanent works, they can be more flexible in terms of their location and relationship to the Boulevard. These locations should be reviewed on a case-by-case basis, considering their purpose, duration, scale and functionality.

The undeveloped Primary and Secondary Nodes are ideal locations for temporary installations, to provide animation of their public realms and to pilot or evaluate the potential for permanent works.

Additional design guidelines that temporary installations should consider include the following:

- Be respectful of other commemoration and public art. While a temporary installation may reduce visibility or access to other commemoration or artwork for a short period, it should not completely obscure or debase the artistic theme of other works.
- Maintain pedestrian clearways along primary circulation routes, including sidewalks, trails, and entrances to buildings and open spaces.
- Follow best practices for public safety and obtain approvals from authorities.

6 Character Areas and Experiences

This section outlines specific considerations for each segment and node along the Boulevard. The segment-specific considerations include character, priorities and guidelines. The node-specific considerations include priorities, principles and potential enhancements. These are intended to build on the mobility and public realm components detailed in **Section 4** and provide additional context-specific guidance.

Multiple scenarios are considered for select segments and nodes. Some of these represent short- and long-term plans, while others address different potential outcomes of ongoing planning processes for other major initiatives.

This section also provides demonstration plans and perspective sketches, illustrating how the principles, priorities and guidelines could be applied. These are big ideas that build on various plans, projects and initiatives. They are not intended to be prescriptive and must be validated and refined through future study and design work. They could potentially be reimagined in the process. The future designs must nevertheless follow the principles, priorities and guidelines written in this document. The goal is to guide the evolution of the various segments of the Boulevard and leverage the opportunities presented by major capital projects over the next 20 years.

6.1 Segments

Confederation Boulevard is composed of several segments with distinctive characters that are bound together as a cohesive Capital experience. The “Linking Ring” is composed of six distinct segments: Wellington Street, the Portage Bridge, Rue Laurier, Alexandra Bridge, Mackenzie Avenue and Sussex Drive.

In addition, the short segment of Elgin Street between Laurier Avenue and Wellington Street, and the long segment of Sussex Drive between St. Patrick Street and Rideau Gate are ceremonial routes and are also important components of Confederation Boulevard.

Refer to **Figure 54** for a key plan of Confederation Boulevard’s segments. Planning and design guidance is provided for each of these segments in later subsections of this document. Demonstration cross-sections have been prepared for each segment based on potential future scenarios to show potential right-of-way arrangements that reflect both general and segment-specific design guidance. Refer to **Figure 55** for a key plan of the demonstration cross-sections.

Figure 54: Key plan of Confederation Boulevard's segments

Figure 55: Key plan of subsegments and demonstration cross-sections

6.1.1 Wellington Street

Character

Wellington Street is the address of Canada's most important government buildings and should be of highest design and material quality, befitting the quality of the architecture and the cultural landscape setting, including the Parliament Buildings, National Historic Site of Canada and many heritage buildings. Wellington Street creates the first impression of the Parliamentary and Judicial Precincts for visitors and tourists, and is a busy thoroughfare in its own right. More than any other street, it establishes the public realm character of Confederation Boulevard for all. This segment is adjacent to the national space for Indigenous Peoples at 100 Wellington Street and 119 Sparks Street, and the future Indian Residential Schools National Monument on Parliament Hill, which contribute to Reconciliation.

Where the character of the Grand Esplanade or Inner Ring side of the Boulevard is akin to an encircling red carpet to walk and experience the Capital, the area in the Parliamentary Precinct has a dual function as an important vantage and gathering point, where people linger. The streetscape character should be more plaza-like, expanding the red-carpet treatment to encompass the entire right-of-way. While this plaza treatment would be open to traffic (vehicles and/or tram) on a day-to-day basis, it could be closed during events and celebrations, and programming and activity could spill across its surface. Lighting, street trees and furniture should be carefully aligned and regularly spaced to create a formal allée. The area in front of Parliament Hill should be kept free of street furniture as much as possible to create an open and flexible space with quiet dignity. The streetscape character and plaza treatment should extend west along the north side of Wellington through the Judicial Precinct. The plaza treatment should spill across the entire right-of-way of key locations such as intersections and Secondary Nodes to connect both sides of the boulevard.

Priorities

To pursue the guiding principles for the Wellington Street segment, the following priorities have been identified:

a. Widen sidewalks to improve their capacity considering the prominence of this street in the Core Area and its potential emphasis on transit.
b. Embellish the public realm to improve the pedestrian experience within the Parliamentary and Judicial Precincts.
c. Introduce a two-way bikeway along the north side of the street as part of the Confederation Boulevard Cycle Loop.
d. Enhance tree planting. Large, connected soil volumes (soil cells) with enhanced soil quality, augmented by frequent soil and tree maintenance, are high priorities for this segment.
e. Minimize the visual impact of security measures by preferring dual-purpose measures such as security planters and benches.
f. Provide the flexibility for a tramway to be implemented along the street.
g. Support parliamentary and judicial operations.

Subsegments

The Wellington Street segment is divided into subsegment W1 and W2, aligning with the Parliamentary Precinct and Judicial Precinct, east and west of Kent Street respectively. The Judicial Precinct Master Plan is presently under development, and the Long Term Vision and Plan for the Parliamentary Precinct was completed in 2025. The two subsegments of Wellington have different requirements, with respect to both transportation needs and integration with the adjacent precincts. The difference in design relates to the character of adjacent spaces and buildings, as well as the nature of pedestrian flows and gathering, which may show up in subtle differences in design responses. The difference in transportation needs relate primarily to interprovincial general traffic and bus transit. The streetscape of both subsegments should be designed for visual continuity as one unified segment of the Boulevard.

Figure 56: Wellington Street key plan

Wellington Street connects the Portage Bridge to Ottawa's downtown core, where traffic disperses into a number of connecting streets. There is no viable alternative route to which the significant volume of interprovincial traffic using the Portage Bridge can be diverted. Stakeholders have considered concepts for a potential new link to divert traffic away from Wellington, but they were rejected due to high cost, complexity and impacts. Therefore, general traffic and bus transit connectivity must be maintained on Wellington between the Portage Bridge and a sufficient number of connecting streets. In the existing condition, from west to east, Bay Street connects with two northbound lanes, Lyon Street connects with two southbound lanes and northbound bus transit, Kent Street connects with three northbound lanes, and Bank Steet has one lane in each direction. Further traffic studies are required to determine how many of these connections must be maintained, which in turn informs the westmost extent of closure to traffic that is feasible on Wellington as well as the number of traffic lanes required on each block.

Security is an important consideration along both subsegments of Wellington Street, on both sides of the street and within the right-of-way itself. Use a range of strategies, consistent with these guidelines, based on the site-specific context and future decisions with respect to the configuration of the right-of-way (e.g. degree of closure, permitted vehicles).

Figure 57: Wellington Street East key plan

Subsegment W1: Wellington Street East (Parliamentary Precinct)

The following additional guidelines apply to this subsegment:

- Eliminate or minimize curbs or grade changes. The objective is to create a flat, seamless surface. Provide alternative high-contrast tactile guidance and wayfinding for people with vision impairments.
- Provide unit paving across the right-of-way, with the possible exception of the cycling facilities. The zone in front of Parliament Hill should be red granite pavers (no concrete pavers).
- Address Parliamentary Precinct security needs, which may evolve over time. This includes potential security measures along buildings located on Confederation Boulevard. Where possible, integrate security measures into the streetscape design to minimize their visual impact. Make sure emergency vehicles can move efficiently throughout the segment.
- Accommodate essential and/or accredited vehicles in support of parliamentary operations, including parliamentary shuttles.
- Provide signalized accessible pedestrian crossings across Wellington at key locations and at regular intervals. These are essential for accessibility and connectivity for all scenarios, including those that close this segment to general traffic.

- Keep the area in front of the Queen's Gates and the Peace Tower axis clear of furniture such as benches, waste receptacles and bicycle racks (north side of Wellington Street), to provide a flexible, open gathering area for photography and demonstration. Provide furniture, including seating and waste receptacles, on the immediate periphery of this area.
- The location and design of furniture, lighting, planting and other streetscape elements should be considered in light of its site-specific context based on the need for openness, gathering, seating, shade, spatial enclosure, pedestrian flows and the like. The treatment will vary along this subsegment.
- Ensure east-west pedestrian flows and north-south pedestrian crossings are direct and of generous width.
- Provide multiple rows of street trees along Wellington Street to create a grand, continuous green corridor that can re-establish the historic majesty of the street when it was lined by American Elm trees.
- Provide bike parking, referring to the Long Term Vision and Plan for the Parliamentary Precinct (PSPC, 2025) for placement considerations. The provision of adequate bike parking is expected to reduce instances of bikes haphazardly locked to trees or other street furniture.
- Make sure maintenance vehicles are able to access and move around the Boulevard. Maintenance to the Boulevard itself and fronting buildings on the south side will occasionally require vehicular access. Provide stopping areas for maintenance vehicles that do not obstruct other Boulevard uses.

In addition to these guidelines, planning within the Parliamentary Precinct Campus is informed by the operational requirements of Parliament and PSPC's Long Term Vision and Plan for the Parliamentary Precinct (2025). The potential removal of general traffic from a portion of Wellington Street is intended to complement Sparks Street by creating a parallel public space with a different character and function. If the decision is made to remove general traffic from a portion of Wellington Street, the corresponding design should ensure that local access, street parking and loading zones along side streets are maintained or enhanced. Refer to the Core Area Plan (NCC, 2025) for further considerations.

Figure 58: Wellington Street West key plan

Subsegment W2: Wellington Street West (Judicial Precinct)

The following additional guidelines apply to this subsegment:

- Extend the unit paving plaza treatment from W1 along the north side of W2 using a consistent design approach.
- Extend the north side plaza treatment across the full right-of-way at key locations such as intersections and Secondary Nodes.
- Maintain sufficient capacity for transit buses and general traffic, considering the street's importance for interprovincial travel. Traffic modelling and consultation with affected agencies will be required to determine how much traffic capacity must be maintained to avoid undue impacts on transit service, the travelling public and the surrounding road network.
- Make sure emergency vehicles can move efficiently throughout the segment at all times of day. Make sure they have the ability to get through when traffic is backed up.
- Address Judicial Precinct security and vehicular access needs.
- Progressively transition the width of the Boulevard, always going from wider in the west to narrower in the east, to avoid giving the Esplanade a meandering alignment.
- Ensure east-west pedestrian flows and north-south pedestrian crossings are direct and of generous width.
- Provide multiple rows of street trees along Wellington Street to create a grand, continuous green corridor that can re-establish the historic majesty of the street when it was lined by American Elm trees.
- Provide bike parking. The provision of adequate bike parking is expected to reduce instances of bikes haphazardly locked to trees or other street furniture.

Scenarios and Demonstration Cross-sections

Demonstration cross-sections are provided for each subsegment for two scenarios to guide the future design of the Wellington segment. Scenario A assumes that Wellington is selected for the STO tram. Scenario B presents an alternative vision for Wellington without the tram. The demonstration cross-sections and concept sketches illustrate potential configurations based on assumed traffic capacity requirements.

Scenario A: With Tram

This scenario assumes that the STO implements the tramway alignment that follows Wellington Street from the Portage Bridge to the tram's terminus on Elgin Street. For the purposes of the demonstration cross-sections, it is assumed that general traffic and bus transit connectivity must be maintained at a minimum between the Portage Bridge and either Kent Street or Bank Street to adequately accommodate interprovincial travel. It is likely that the number of traffic lanes can be reduced with each side street connection. Therefore, the proportion of the cross-section dedicated to general and bus traffic will decrease from west to east in an incremental fashion. The primary access to Parliament Hill is north of Bank Street, requiring connectivity to be maintained. A comprehensive traffic study is needed to determine the number of traffic lanes required for each block and the extents of closure to general and bus traffic. This is to ensure space is not over-allocated to general traffic, while also avoiding undue impact to the road network across the region. The traffic study must also consider local access needs for the Judicial Precinct and Parliament Hill.

The following additional guidelines apply to Scenario A:

- It is preferred that the tram not have overhead catenaries on Wellington Street.
- Design tram shelters and other platform amenities for visual conformity with the Confederation Boulevard furniture family. Do not locate platforms in front of the Parliament Buildings or the Supreme Court of Canada Building. Consider the original design intent of adjacent buildings and their landscaping. Strive to maintain key viewscapes.
- Consider providing bike parking in the vicinity of tram platforms.
- Accommodate parliamentary shuttle stops in proximity to parliamentary buildings.

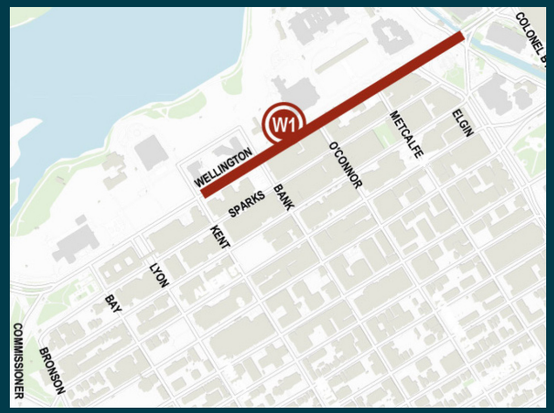
The following additional guidelines apply to Scenario A, Wellington Street East (W1):

- With the tram, the south side may offer a better opportunity to provide a double row of trees.
- Consider tramway rails set flush with the paver surface to allow essential vehicles to share the guideway to reduce impacts on pedestrians, cyclists and public realm features.
- Close this subsegment to general-purpose traffic to support efficient tram operation and enhance the security of the Parliamentary Precinct. Consider using automated retractable bollards to prevent entry by unauthorized vehicles.
- Provide access to maintenance vehicles and ensure they can stop south of the guideway. Boulevard and building maintenance activities must not interfere with tram circulation. The provision of periodic stopping areas will avoid the need for these vehicles to obstruct pedestrian circulation during maintenance activities.
- Ensure essential and/or accredited vehicle access is maintained to buildings in the Parliamentary Precinct.

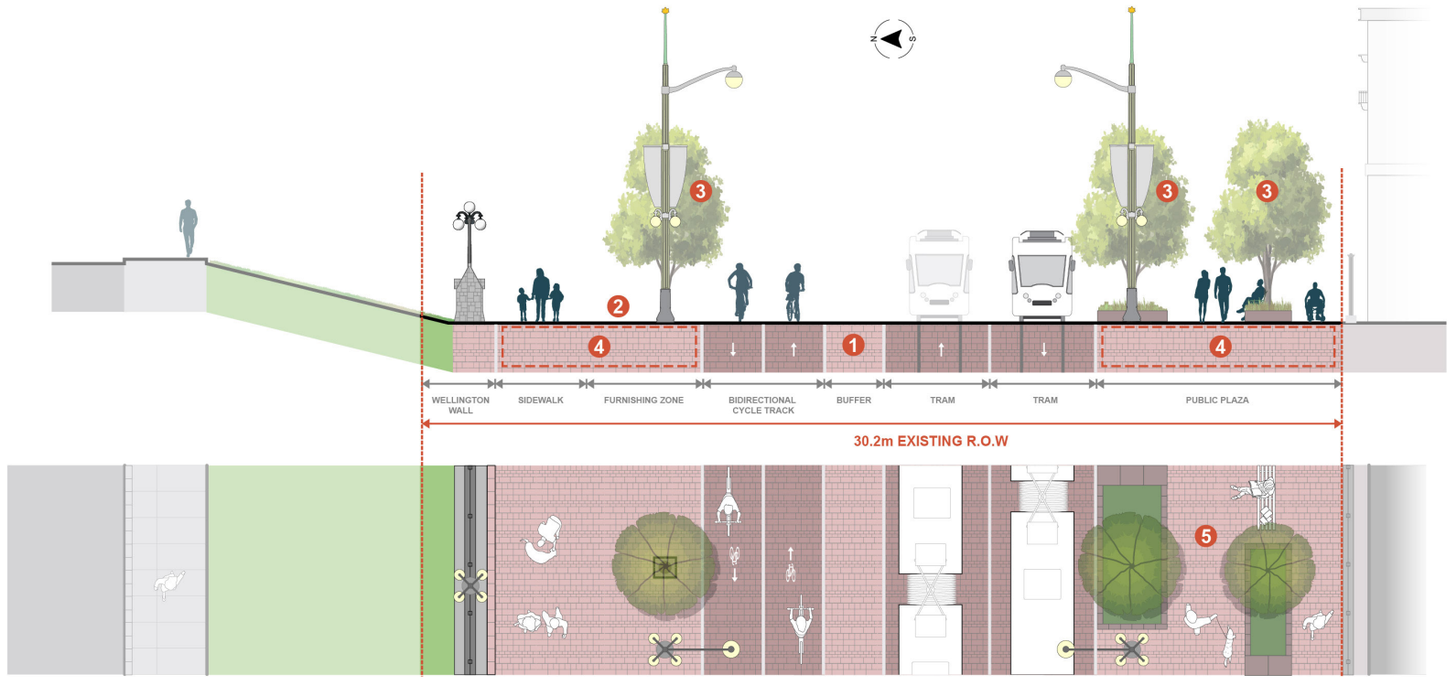
The following additional guidelines apply to Scenario A, Wellington Street West (W2):

- Consider the use of tramway rails set flush with the surrounding surface in conjunction with a mountable curb to allow emergency vehicles to use the guideway to get through when traffic is backed up.
- Consider strategically coordinating tramway platform placement with vehicle lane reductions to maintain alignment across intersections and to minimize discontinuities in linear alignment of Boulevard elements.
- Protect tram platforms from adjacent vehicle lanes.
- Provide high-quality pedestrian connections between tram platforms and the sidewalks on both sides of Wellington Street.
- Ensure vehicular access is maintained to Judicial Precinct buildings on the north side of Wellington Street.
- The lateral placement of the tramway within the Wellington Street cross-section must be determined through comprehensive study, with considerations including traffic capacity requirements, intersection design requirements, access requirements and security for the judicial precinct, heritage conservation, and continuity with the cross-section on the Portage Bridge.

Cross Section W1A



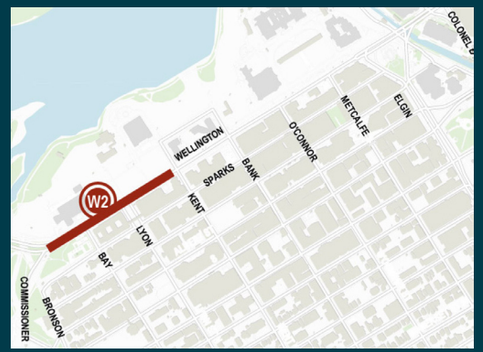
Cross-section W1A demonstrates the reallocation of space from the existing vehicular lanes to widen the sidewalk, add a two-way bikeway to complete the Confederation Boulevard Cycling Loop, accommodate the tramway and create a public plaza along the east subsegment.



Cross-section W1A: Wellington Street Segment, Tram Scenario, East Subsegment (Kent Street to Elgin Street)

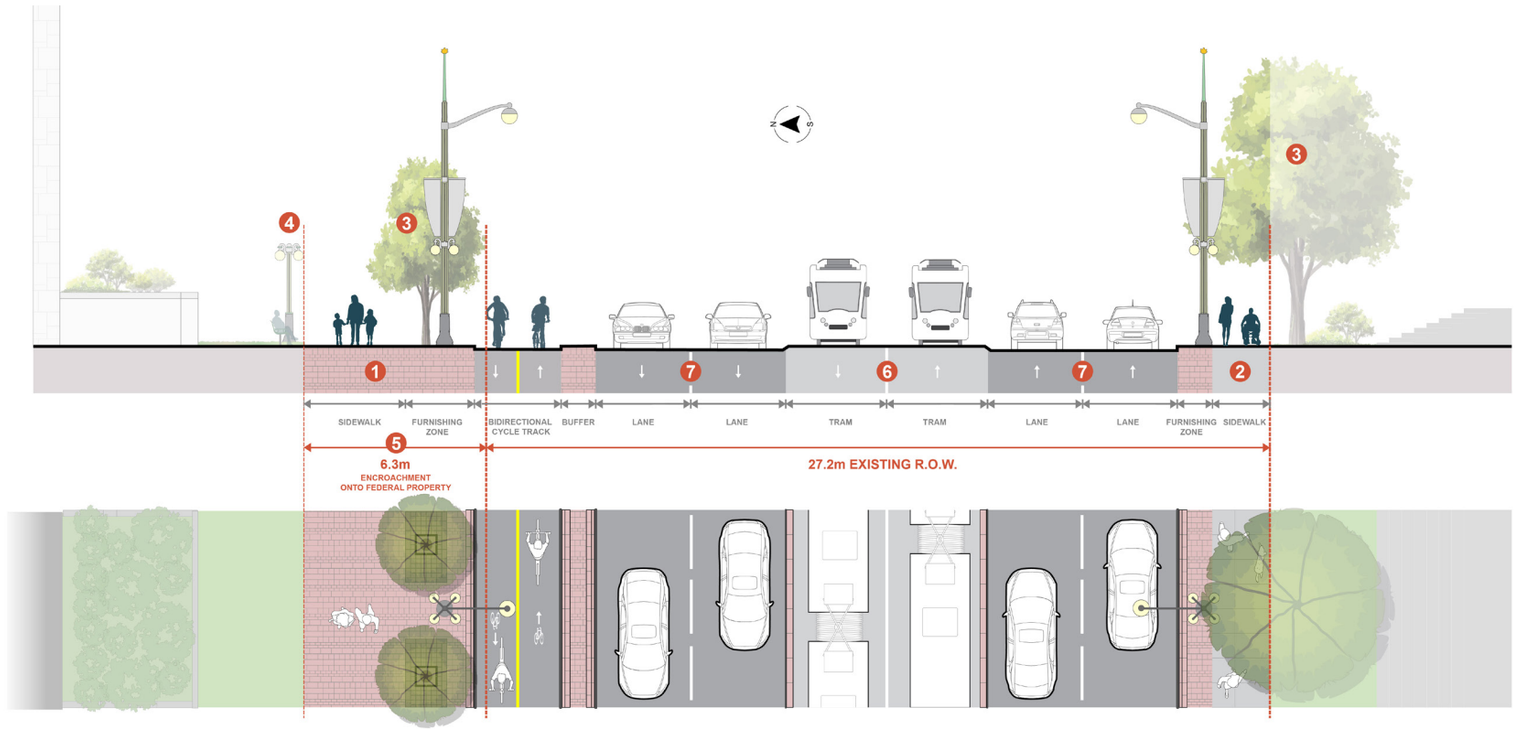
1. Continuous red granite unit paving from Parliament Hill to south building face, preferably curbless
2. Raised planters offer seating edges, protect trees, keep furniture tidy and aligned, and may offer some security benefits
3. Single row of trees on each side
4. Maximize soil volumes to promote tree health
5. Potential occasional service vehicle circulation

Concept Sketch 1: Wellington facing east from Metcalfe (tram scenario). Sketch is conceptual and will evolve as more detailed design and security requirements are defined. This sketch assumes a larger secure vehicle perimeter is established for the plaza area, not visible in this viewpoint.



Cross-section W2A.1 demonstrates a balanced approach to maintaining interprovincial traffic capacity while also accommodating the tramway and adding a two-way bikeway to complete the Confederation Boulevard Cycling Loop. It is located immediately west of Bay Street and features two general traffic lanes in each direction. In the existing condition in the vicinity of Bay Street, the north side sidewalk encroaches 3.5 metres onto adjacent federal property. An additional width of approximately 3 metres would be required to accommodate all proposed elements, with impacts limited to landscaped areas. The tramway is constructed flush on a hard surface to allow emergency vehicles to bypass traffic queues during periods of congestion. It is raised with mountable curbs to discourage general traffic from entering.

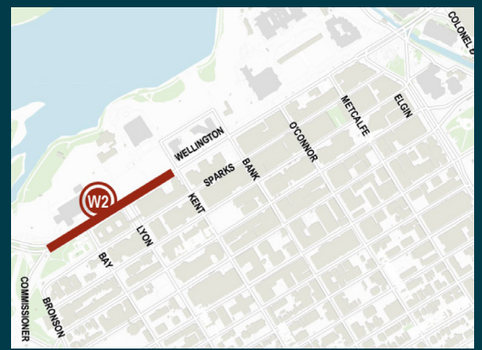
Cross Section W2A.1



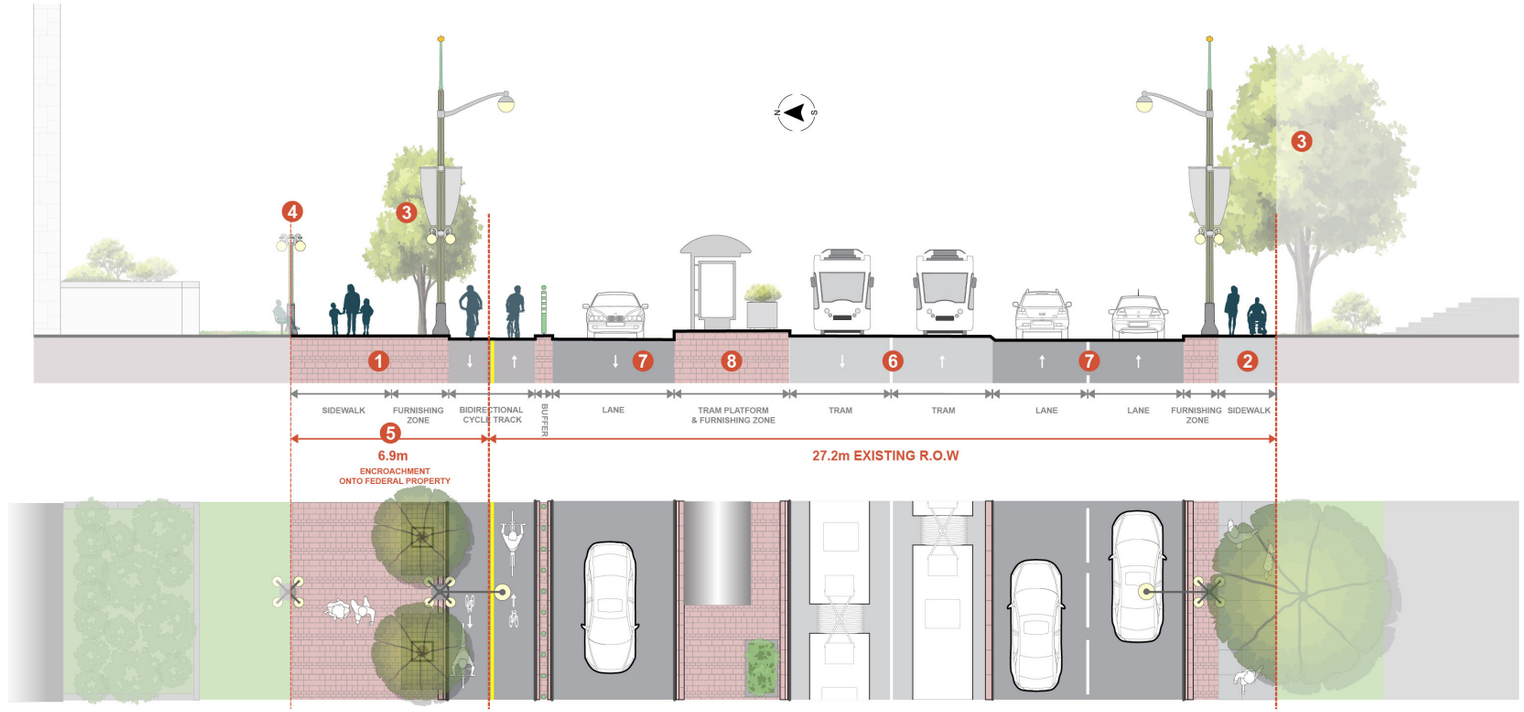
Cross-section W2A.1: Wellington Street Segment, Tram Scenario, West Subsegment (West of Bay Street)

1. Esplanade or Inner Ring side: unit paving featuring some use of granite
2. Outer Ring side: concrete sidewalk with unit paving band in furnishing zone
3. Single row of trees on both sides of the street with tree grates
4. Double row of Confederation Boulevard pedestrian light standards on the north side
5. Additional width of approximately 3 metres is required from adjacent federal property to accommodate all elements
6. The tramway is constructed flush on a hard surface to allow passage of emergency vehicles
7. Two traffic lanes are provided in each direction west of Bay Street

Cross Section W2A.2

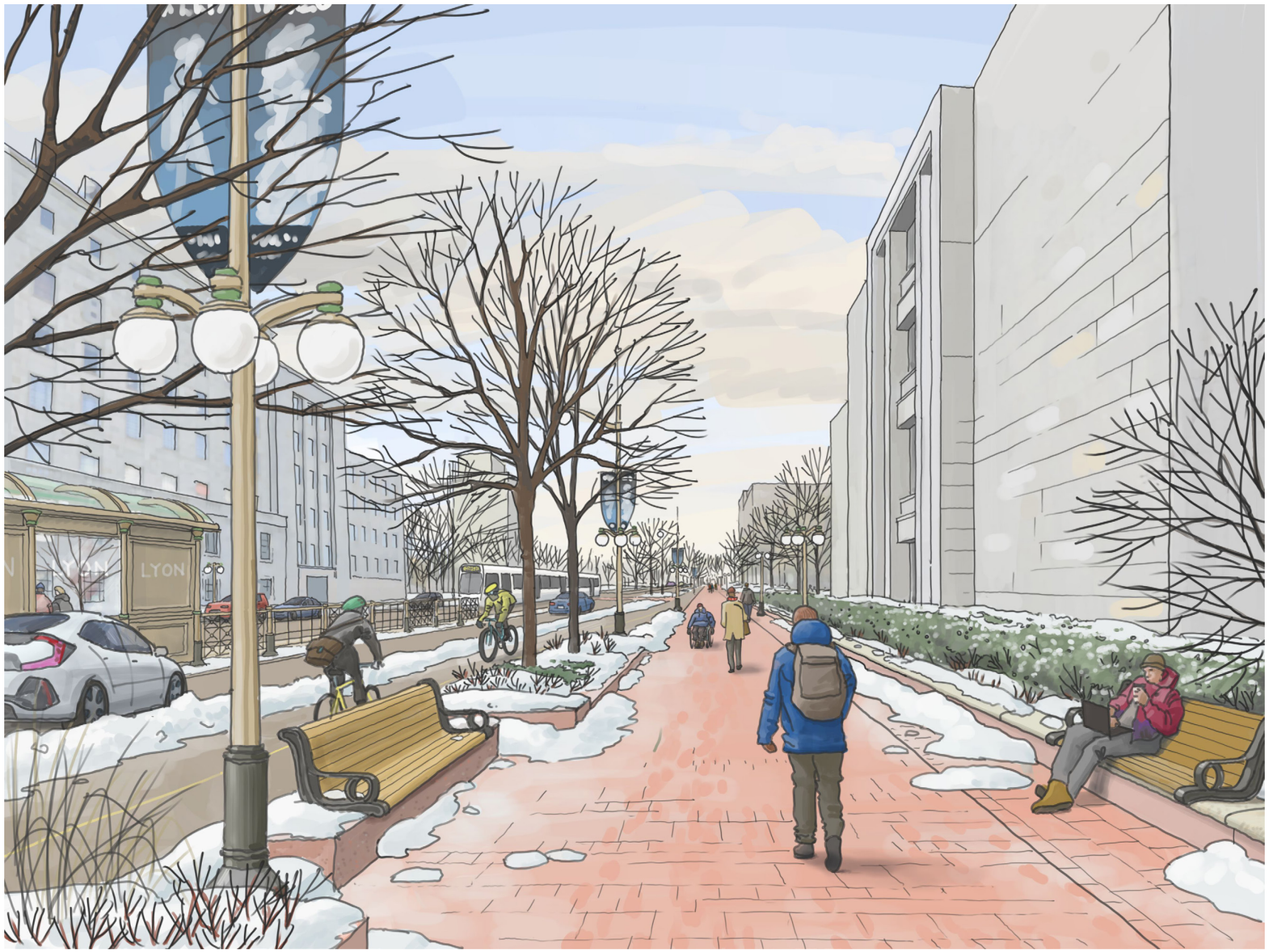


Cross-section W2A.2 represents the condition between Bay Street and Lyon Street. The second westbound lane is dropped at Bay Street, and a tram platform is provided in its place. This keeps the cross-section aligned as it crosses Bay Street, minimizing discontinuity in the alignment of the Esplanade. The two westbound lanes west of Bay Street allow the existing northbound double left turn to remain in place, so that traffic from downtown Ottawa can access the Portage Bridge. The single westbound lane east of Bay Street would continue east, to either Kent Street or Bank Street. The two eastbound lanes would continue east, to the double right turn at Lyon Street. A westbound tram platform could be provided east of Lyon, reducing the eastbound lanes from two to one, to keep the cross-section aligned as it crosses the intersection.

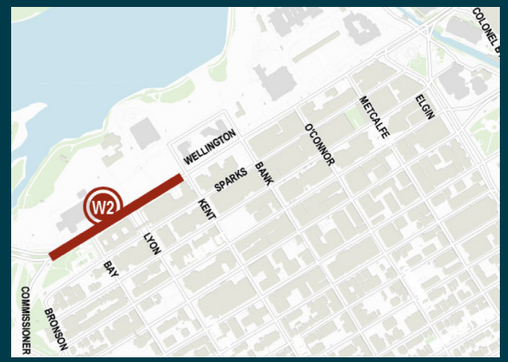


Cross-section W2A.2: Wellington Street Segment, Tram Scenario, West Subsegment (Bay Street to Lyon Street)

1. Esplanade or Inner Ring side: unit paving featuring some use of granite
2. Outer Ring side: concrete sidewalk with unit paving band in furnishing zone
3. Single row of trees on both sides of the street with tree grates
4. Double row of Confederation Boulevard pedestrian light standards on the north side
5. Additional width of approximately 3 metres is required from adjacent federal property to accommodate all elements
6. The tramway is constructed flush on a hard surface to allow passage of emergency vehicles
7. One westbound lane and two eastbound lanes are provided between Bay Street and Lyon Street
8. Tram platform is in line with second westbound lane west of Bay Street, a crosswalk is provided at the intersection

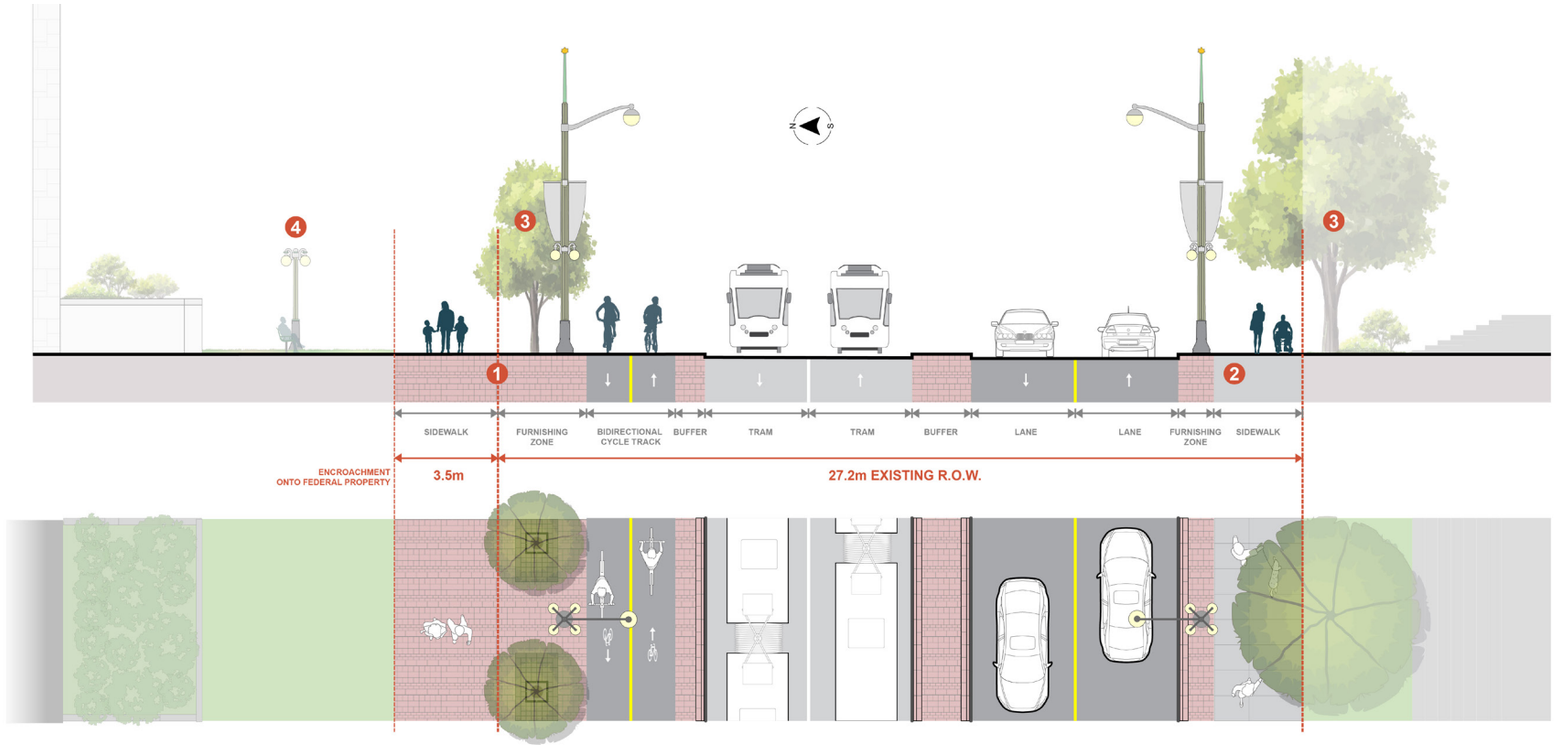


Concept Sketch 2: Wellington facing west from Lyon (Tram Scenario)



Cross-section W2A.3 demonstrates an alternative arrangement for this segment and scenario that assumes that a larger diversion of vehicular traffic is possible, enabling a more significant reduction in the general traffic lanes. If only one lane is provided in each direction, placing both lanes south of the tramway results in a more spatially compact arrangement. This also eliminates the need for vehicles turning to or from the westbound direction to cross the tramway at side street intersections. It introduces the need for dedicated tramway crossings for access to and from Judicial Precinct buildings, which would have their own set of challenges and requirements. The impacts on interprovincial bus traffic must also be considered, as the tramway is not expected to fully replace interprovincial bus service. The addition of bus lanes may be required as mitigation, resulting in a wider cross-section.

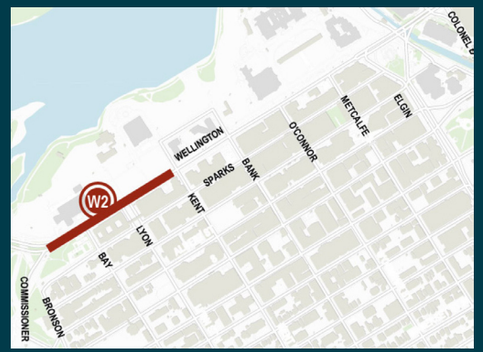
Cross Section W2A.3



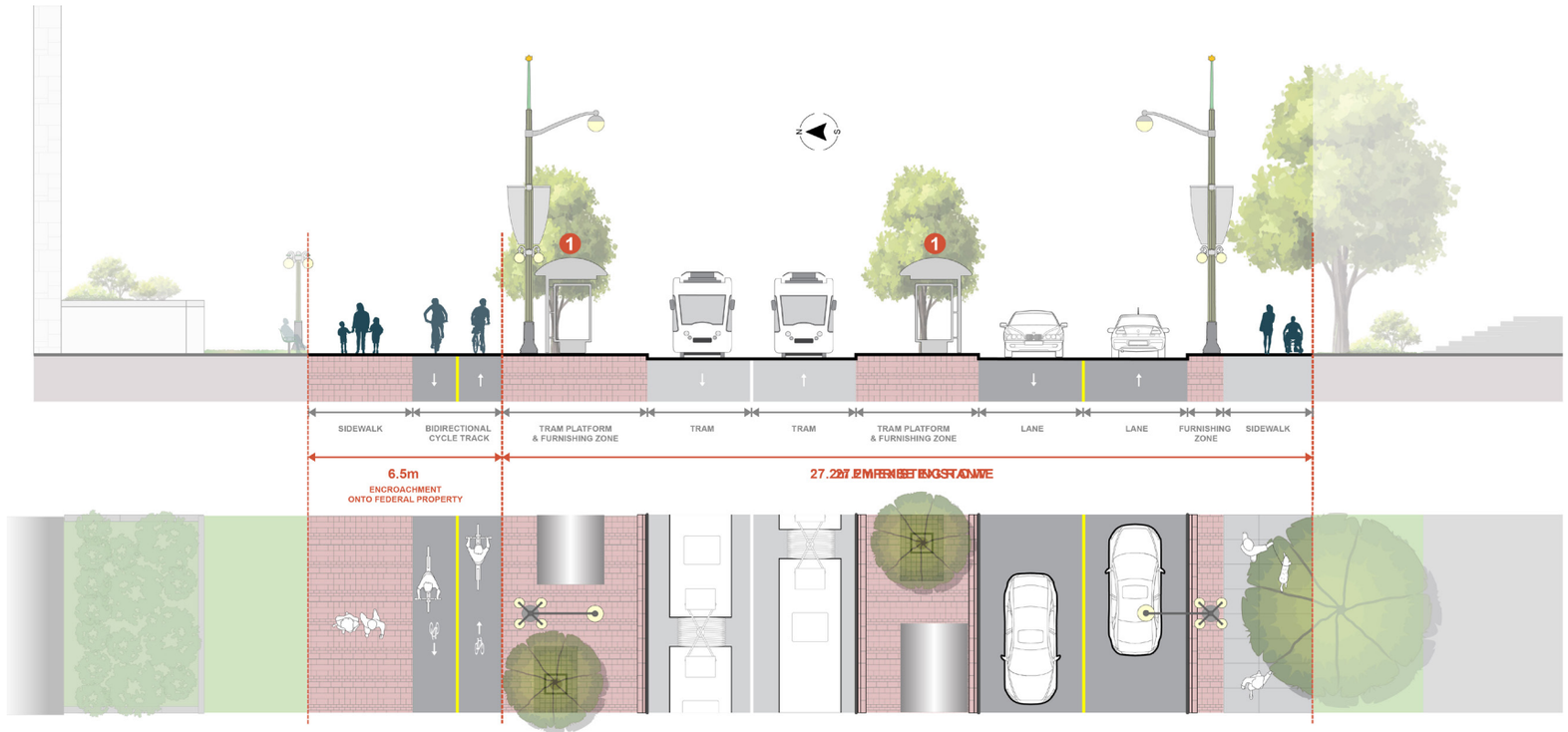
Cross-section W2A.3: Wellington Street Segment, Tram Scenario, West Subsegment (Commissioner Street to Kent Street)

1. Esplanade or Inner Ring side: unit paving featuring some use of granite
2. Outer Ring side: concrete sidewalk with unit paving band in furnishing zone
3. Single row of trees on both sides of the street with tree grates
4. Double row of Confederation Boulevard pedestrian light standards on the north side

Cross Section W2A.4



Cross-section W2A.4 demonstrates the integration of tram platforms into the alternative arrangement. If bus lanes are required to mitigate impacts of the lane reduction on interprovincial transit service, the tram platforms may need to be staggered longitudinally to fit all required elements into the cross-section.



Cross-section W2A.4: Wellington Street Segment, Tram Scenario, West Subsegment (Commissioner Street to Kent Street) at Tram Platform

1. Design of tram shelters is compatible with Confederation Boulevard furniture family and provides additional pedestrian amenities

Scenario B: No Tram on Wellington

This scenario assumes the absence of a tramway alignment that follows Wellington Street. The reduction of general traffic lanes in the west segment and the lane reduction or potential closure of Wellington Street in the east segment are consistent with the guiding principles for Confederation Boulevard. This space should be reallocated to other priorities including the public realm, tree planting, widened sidewalks and cycling. A public plaza should be created in the east segment with a flexible central space. The central space could be closed to general traffic during special events, or permanently, considering Parliamentary Precinct security needs and other relevant factors. A progressive lane reduction in the west segment should be implemented similar to that described for Scenario A.

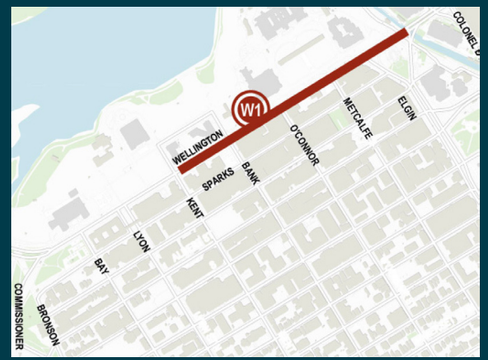
This demonstration could also apply as an interim improvement, implementing the public plaza in advance of tramway construction. The design would need to be prepared considering future tramway requirements, so that only the guideway and platform areas require reconstruction to accommodate the tram.

The following additional guidelines apply to Scenario B, Wellington Street East (W1):

- Provide a clear corridor of sufficient width to accommodate the passage of emergency vehicles, street maintenance vehicles and other essential and/or accredited vehicles supporting the operations of Parliament, including parliamentary shuttles.
- Consider permitting accredited tour providers to operate buses along this segment.
- Provide maintenance vehicle stopping areas south of the emergency vehicle throughway, as the emergency vehicle and shuttle routes cannot be obstructed.

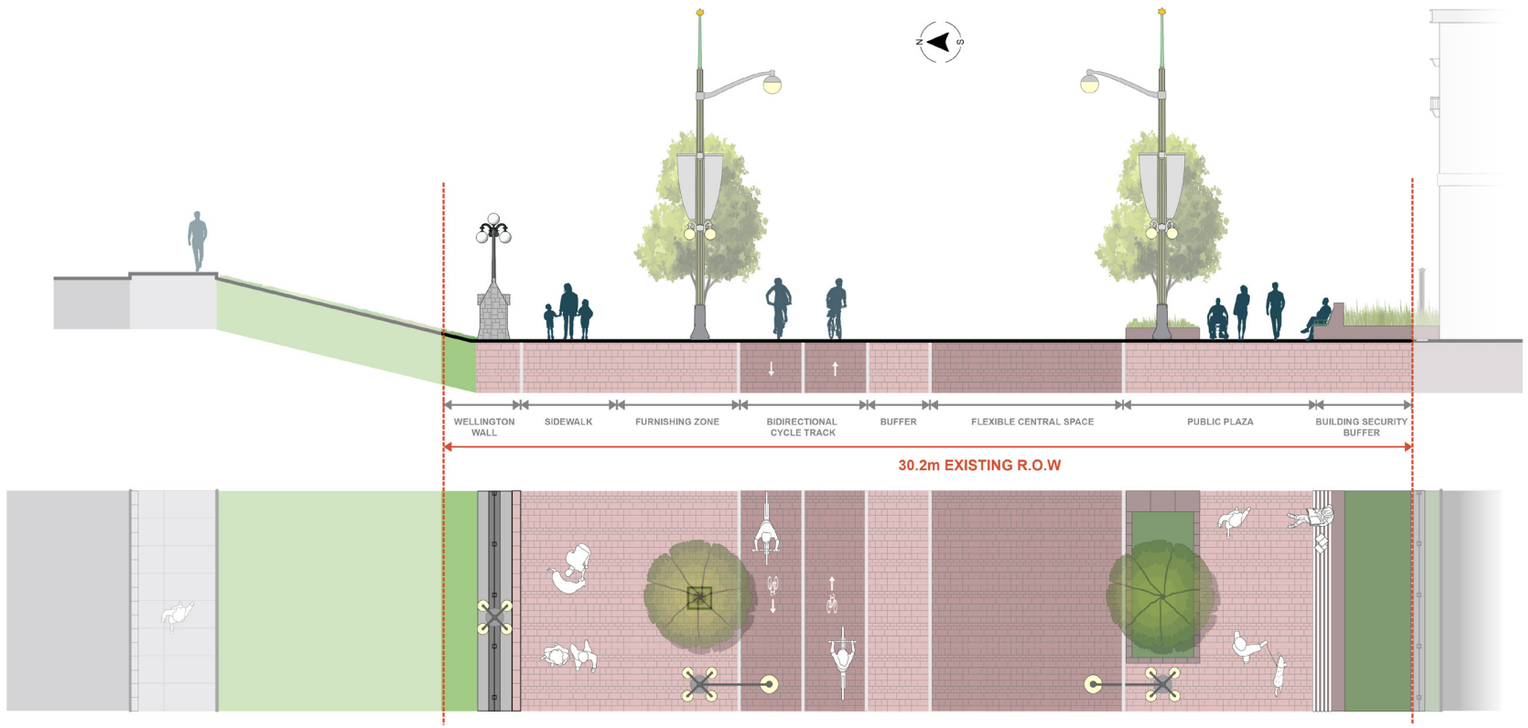
The following additional guidelines apply to Scenario B, Wellington Street West (W2):

- Consider the inclusion of a bus lane to support efficient interprovincial bus transit service.



Cross-section W1B demonstrates repurposing the east subsegment into a public plaza with a flexible central space. When closed to general traffic, the central space serves a dual purpose, accommodating pedestrians while also allowing the passage of essential vehicles such as emergency vehicles and parliamentary shuttles. A generous cycle track is implemented, as well as enhanced tree plantings and other public realm features.

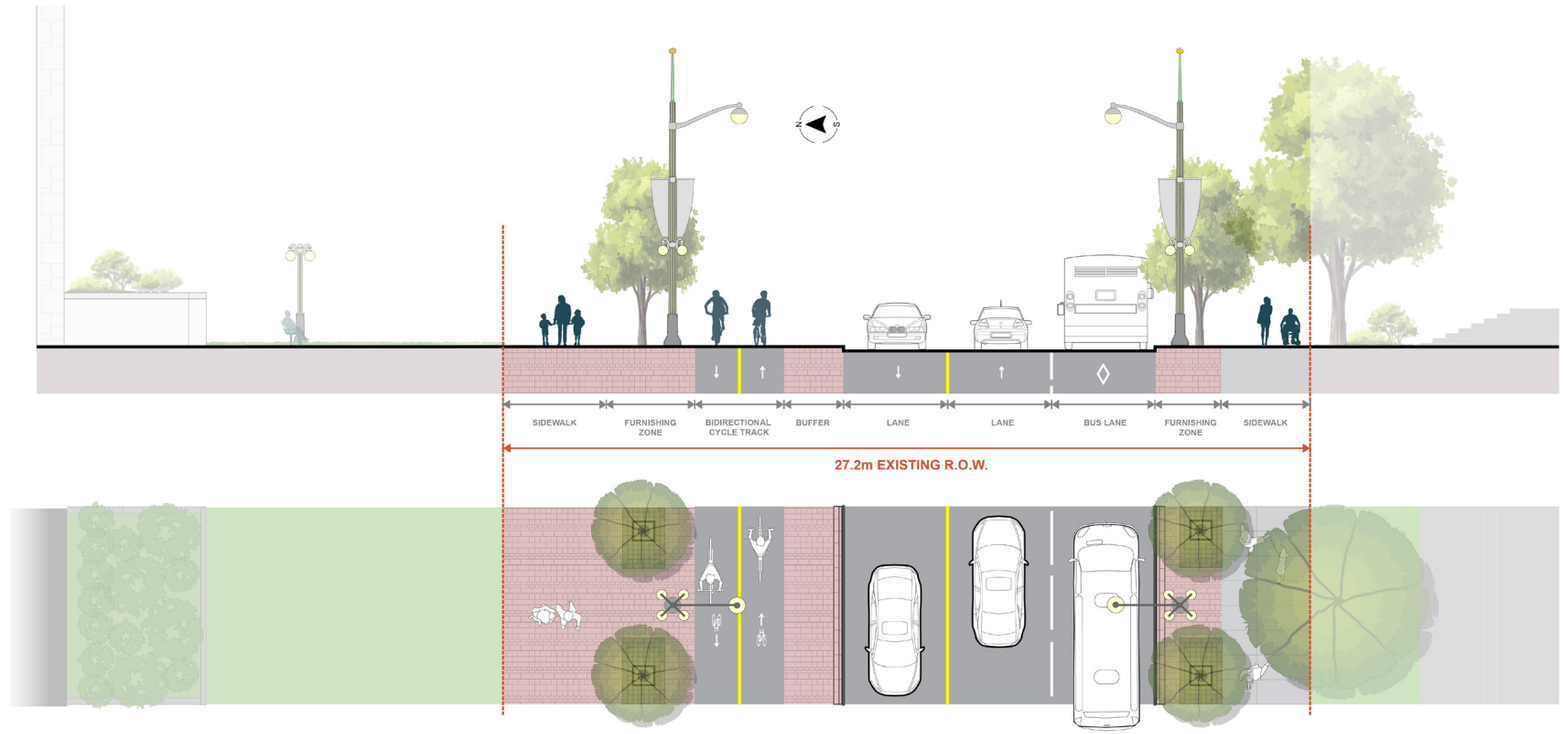
Cross Section W1B



Cross-section W1B: Wellington Street Segment, No Tram Scenario, East Subsegment (Kent Street to Elgin Street)

Cross Section W2B

Cross-section W2B demonstrates maintaining some capacity for general traffic and bus transit while reallocating the remaining space to widen the sidewalk, add a two-way bikeway to complete the Confederation Boulevard Cycling Loop and improve the public realm. The demonstration cross-section includes one general traffic lane in each direction and is intended to represent an intermediate state in the incremental block-by-block lane reduction. An eastbound bus lane is included to mitigate the effects of traffic congestion on transit. The bus lane would also support efficient emergency vehicle movements in the presence of congestion.



Cross-section W2B: Wellington Street Segment, No Tram Scenario, West Subsegment (Commissioner Street to Kent Street)

6.1.2 Portage Bridge

Character

This segment encompasses not only the bridges over the Ottawa River, but also the landing zones on the north shore, Victoria Island and the south shore. It is an experience of the river landscape, both green and blue. Views of Parliament Hill and the river landscape should be emphasized. Reducing the number of vehicular lanes can accommodate the potential tram and increase space for cycling. Introducing street trees and other minor enhancements on adjacent properties, outside of the right-of-way, can contribute to greening of the streetscape and more amenity for pedestrians, including enhanced pedestrian connections to Victoria Island.

Priorities

To pursue the guiding principles for the Portage Bridge segment, the following priorities are identified:

a. Embellish the public realm to improve pedestrians' access to and experience at Victoria Island.
b. Provide the flexibility for a tramway to be implemented along this segment.
c. Anticipate the future realignment of Middle Street to intersect with the Portage Bridge in a signalized intersection that may also create an opportunity for a new tram stop.
d. Integrate the Confederation Boulevard paving materials and patterns.
e. Maintain the Confederation Boulevard pedestrian and vehicular light standards.
f. Maintain sufficient capacity for transit buses and general traffic, considering the bridge's importance for interprovincial travel. Traffic modelling and consultation with affected agencies will be required to determine how much traffic capacity must be maintained to avoid undue impacts on transit service, the travelling public and the surrounding road network.
g. It is preferred that the tram not have overhead catenaries on the Portage Bridge.

Figure 59: Portage Bridge Segment Key Plan

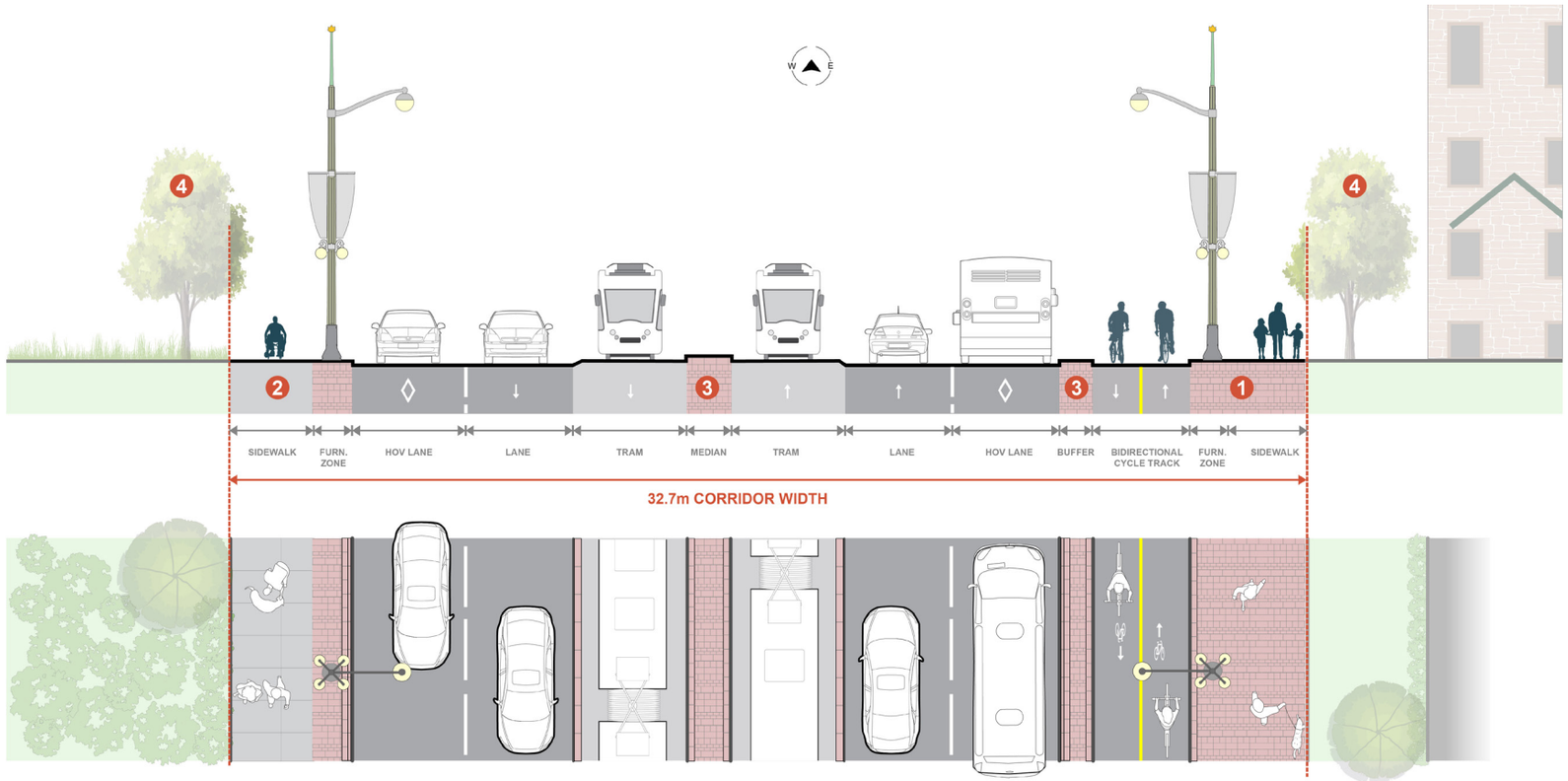
Demonstration Cross-section

A demonstration cross-section is provided to guide the future design, construction and operation of this segment. It illustrates the long-term vision, assuming that the STO tramway is implemented along the median of the Portage Bridge. It is understood that the tramway alignment's lateral position on the bridge is not final and is subject to future technical study, including structural considerations.

Cross Section P1

Cross-section P1 demonstrates a location on Victoria Island between the two spans of the Portage Bridge. Curbside high-occupancy vehicle lanes continue to accommodate interprovincial travel in private passenger vehicles while encouraging carpooling to help mitigate traffic congestion. The high-occupancy vehicle lanes also support efficient bus transit service, as the STO tram is not expected to completely replace all interprovincial bus routes. Unit pavers are used as accents along furnishing zones and in buffer strips. Street tree planting is encouraged on adjacent properties, along with potential future active land uses.

The concrete barrier separating the bikeway from the adjacent lane is removed and replaced with a buffer of appropriate width only on Victoria Island to open the public realm and accommodate potential pedestrian and cyclist crossings. The concrete barrier remains in place on the bridge structures and their approaches where there is insufficient width for an adequate buffer.



Cross-section P1: Portage Bridge Segment, with Tram

1. Esplanade or Inner Ring side: unit paving
2. Outer Ring side: concrete sidewalk with unit paving band in furnishing zone
3. Unit paving within buffer strips
4. Street trees on adjacent properties wherever possible

6.1.3 Rue Laurier

Character

In some places, the existing environment of Rue Laurier lacks a strong frame or pedestrian amenities along the street edge, where the adjacent buildings present unanimated facades facing the Boulevard. The most significant changes to this segment will occur over time as the adjacent land uses along the southern portion of Rue Laurier, particularly NCC lands leased to the Kruger plant, renew and evolve as guided by the Core Area Plan. The Boulevard should respond to this evolution by removing the decorative fencing to create direct visual and functional connections to active uses of building frontages. Together, the Confederation Boulevard streetscape treatment combined with great new building edges will create a welcoming and active street experience.

The decorative fence along the Kruger frontage should remain for as long as these lands continue as an industrial use. The proposed streetscape treatment is appropriate for the short and long terms as the area continues to evolve.

There is an opportunity to implement large soil volumes above PSPC's underground parking garage located under Rue Laurier to foster large, healthy and continuous street trees in this area.

Priorities

To pursue the guiding principles for the Rue Laurier segment, the following priorities are identified:

a. Rejuvenate the public realm to improve the pedestrian experience through the southern portion of the segment.
b. Introduce a two-way bikeway along the east side of the street as part of the Confederation Boulevard Cycle Loop.
c. Reduce general traffic lanes to one in each direction to reduce the focus on private automobile traffic.
d. Introduce a northbound bus lane and improve bus stops to enhance transit efficiency and rider experience.
e. Support the evolution of adjacent land uses by providing open connections to active frontages of renewed buildings.
f. Consider the addition of bioswales to enhance corridor greening and decrease stormwater runoff.

Figure 60: Rue Laurier Key Plan

Subsegments

The Rue Laurier segment is divided into three subsegments. Subsegment L1 extends from the Portage Bridge to Rue de l'Hôtel-de-Ville; subsegment L2 extends from Rue de l'Hôtel-de-Ville to Rue Victoria. They are fronted by government office buildings to the west, and a combination of open space and the Kruger industrial building to the east. Subsegment L3 extends from Rue Victoria to the Alexandra Bridge. The buildings fronting the west side are smaller scale and more directly connected to the street. The Canadian Museum of History extends along the entire east side, a major destination with landmark architecture and landscaping.

Scenarios and Demonstration Cross-sections

Demonstration cross-sections are provided for two scenarios to guide the future design of this segment. The long-term scenario assumes a full reconstruction of the street, allowing it to be reimagined to address the design priorities in a holistic manner, but requires a large investment and coordinated multi-agency efforts to achieve. Since this may be expected to occur in a mid- to long-term time frame, it is important to consider interim improvement opportunities.

The short-term scenario reflects incremental improvements that can be achieved without the need for full reconstruction. These will rebalance the segment to better accommodate sustainable mobility choices and are compatible with the Ville de Gatineau's initiative Étude d'avant-projet pour un lien cyclable sur la rue Laurier (Gatineau, 2023). They will rapidly and cost-effectively advance the Sustainable Mobility key principle.

Scenario A: Long-Term Scenario

This scenario represents a vision for rue Laurier that strongly addresses principles and guidelines for the Boulevard while respecting the local transportation initiatives planned by the Ville de Gatineau. The associated comprehensive reconstruction should be planned in coordination with street surface and underground utility lifecycle replacement needs for best cost efficiency.

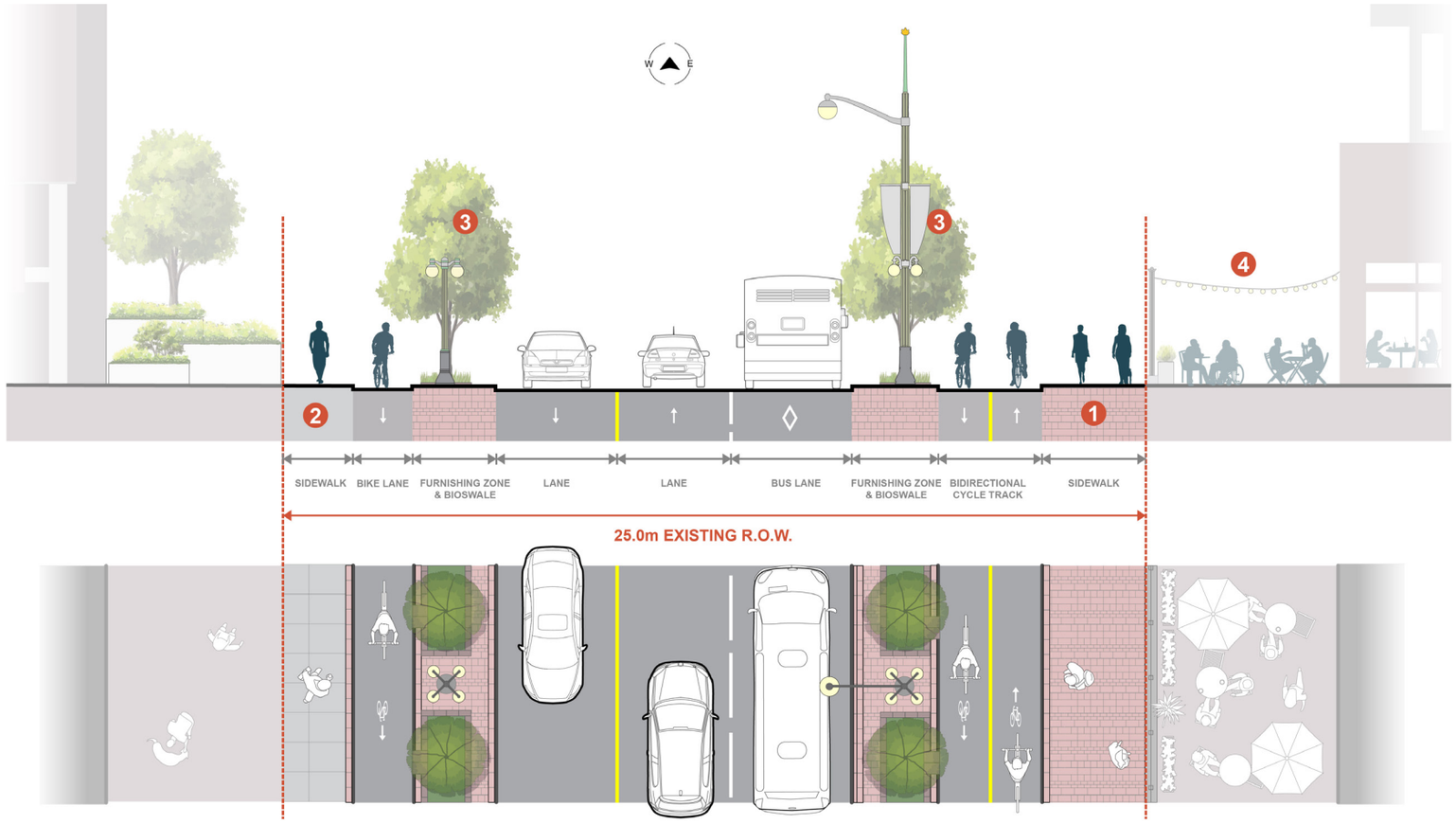
This scenario includes reducing the roadway to one general-purpose travel lane in each direction, plus turn lanes at intersections where appropriate based on traffic studies. A two-way bikeway is added to the east side to complete the Confederation Boulevard Cycling Loop, and a one-way southbound cycle track is added to the west side to support the Ville de Gatineau's cycling network. A northbound bus lane is added to support efficient transit operations.

Treed boulevards separate the cycling facilities from the roadway, increasing user comfort and safety and providing shade. The boulevards also accommodate the Confederation Boulevard light standards and could include bioswales or other shorter greenery. Trees are planted using soil cells and other best practices to enhance tree health and survival.

Sidewalks are positioned on the outside of the cross-section, maximizing separation of pedestrians from road traffic and allowing for direct connections to adjacent land uses. The east sidewalk is part of the Esplanade and features a more generous width and enhanced paving treatment.

Cross Section L1A

Cross-section L1A demonstrates how to respond to existing and evolving land uses in the southern portion of the segment. The left side shows the continued use of landscaping. The right side shows an active and inviting connection to a renewed building that features a restaurant with an outdoor patio.

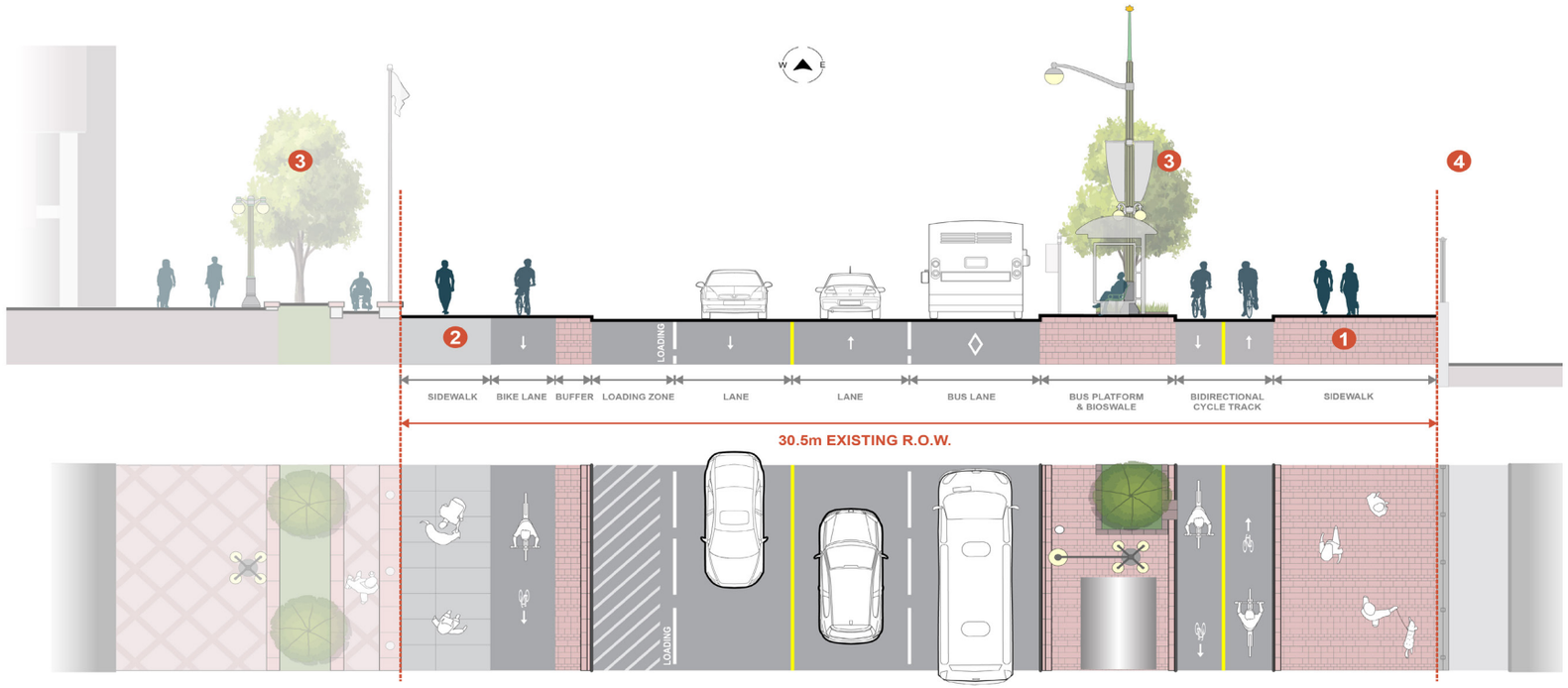


Cross-section L1A: Long-term vision for Rue Laurier, South of Rue de l'Hôtel-de-Ville

1. Esplanade or Inner Ring side: unit paving
2. Outer Ring side: concrete sidewalk with unit paving band in furnishing zone
3. Single row of trees on both sides of the street with open planters
4. In the long term, adjacent building frontages should provide active uses at ground level facing the Boulevard

Cross-section L2A demonstrates the integration of an enhanced northbound bus stop and the loading zone for Gatineau's Maison du Citoyen just south of Rue Victoria.

Cross Section L2A

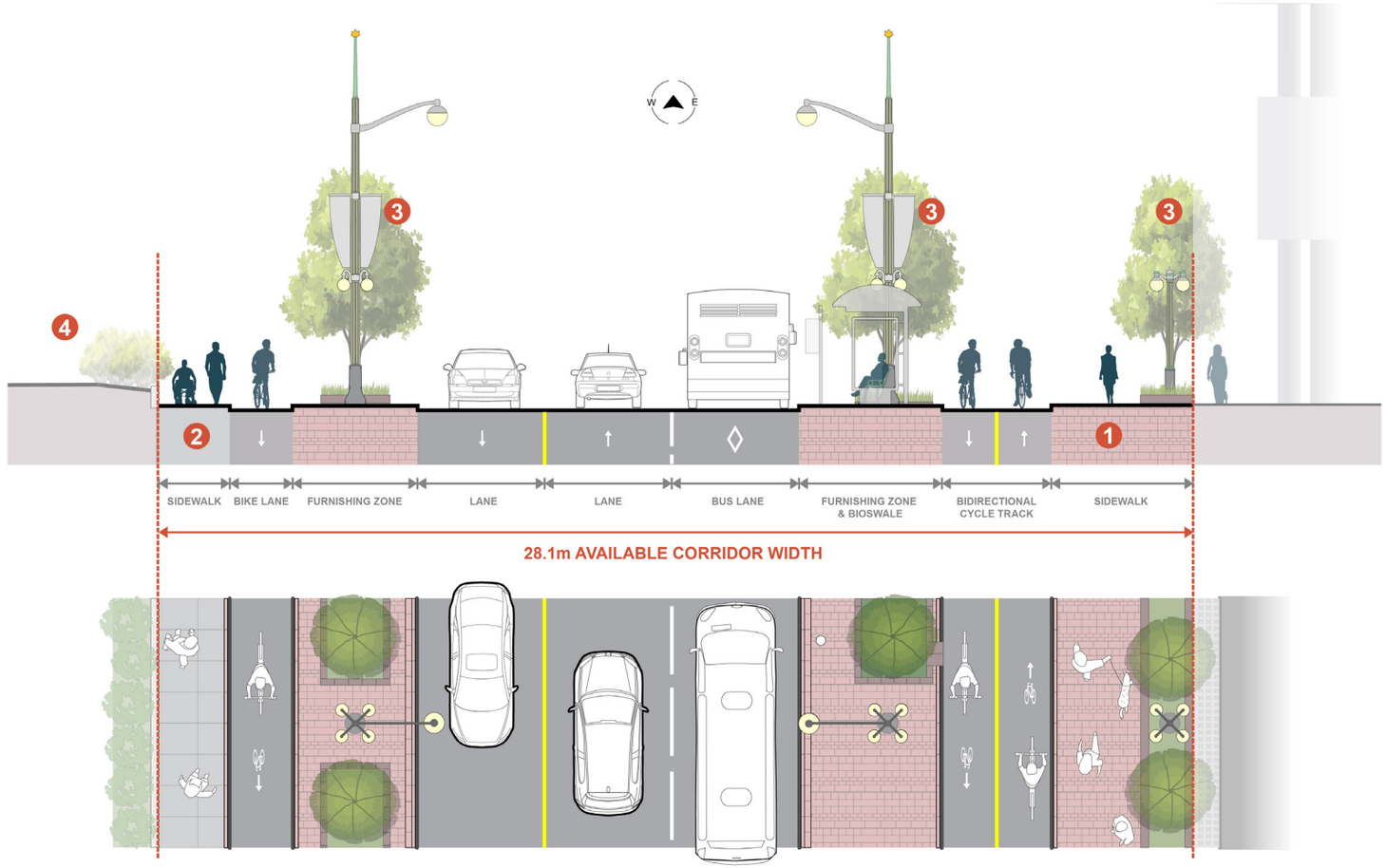


Cross-section L2A: Long-term vision for Rue Laurier, between Rue de l'Hôtel-de-Ville and Rue Victoria

1. Esplanade or Inner Ring side: unit paving
2. Outer Ring side: concrete sidewalk with unit paving band in furnishing zone
3. Single row of trees on both sides of the street with open planters; tree grates near bus shelters
4. In the long term, adjacent building frontages should provide active uses at ground level facing the Boulevard

Cross Section L3A

Cross-section L3A demonstrates the elongated continuous bus platform along the Canadian Museum of History frontage. Planters, trees and bus shelters are used to guide transit users to designated crossing points of the bikeway. These are constructed as raised crossings, with the bikeway ramping up to sidewalk level to emphasize pedestrian priority and increase accessibility. Space along the back of the sidewalk is used for planters and trees to enhance greening, provide shade and delineate Confederation Boulevard from the museum frontage. These planters have frequent openings for pedestrians to pass through.



Cross-section L3A: Long-term vision for Rue Laurier, North of Rue Victoria

1. Esplanade or Inner Ring side: unit paving
2. Outer Ring side: concrete sidewalk with unit paving band in furnishing zone
3. Double row of trees on east side; single row of trees on west side. Open planters; tree grates near bus shelters
4. In the long term, adjacent building frontages should provide active uses at ground level facing the Boulevard

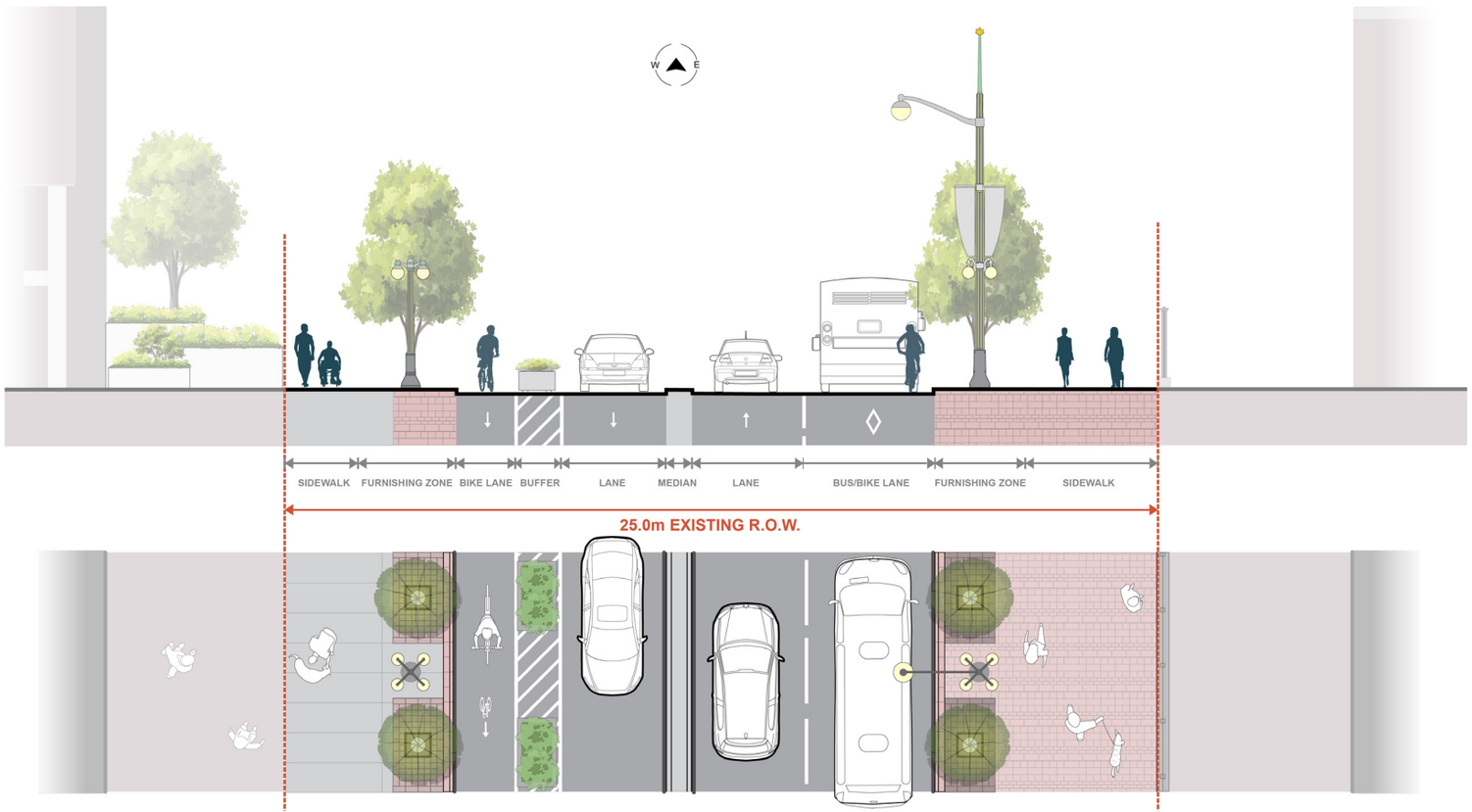
Concept Sketch 3: Rue Laurier in front of the Canadian Museum of History

Scenario B: Short-Term Scenario

This scenario represents the early implementation of spatial reallocation from general-purpose traffic lanes to sustainable mobility choices. Many existing street elements such as curbs, sidewalks, turning lanes at intersections, trees, planters and sidewalks remain unmodified. The Ville de Gatineau has completed studies and planning work in support of these transportation changes, with plans to implement the portion in subsegment L3 in the near term.

Cross-section L1B demonstrates how the spatial reallocation south of Rue de l'Hôtel-de-Ville could be implemented primarily through pavement marking and signage changes. The curbs remain in place, with no modifications required to drainage, street trees, light standards or sidewalk paving treatments. While it does not fully implement the Confederation Boulevard Cycling Loop, it does achieve two-way cycling connectivity.

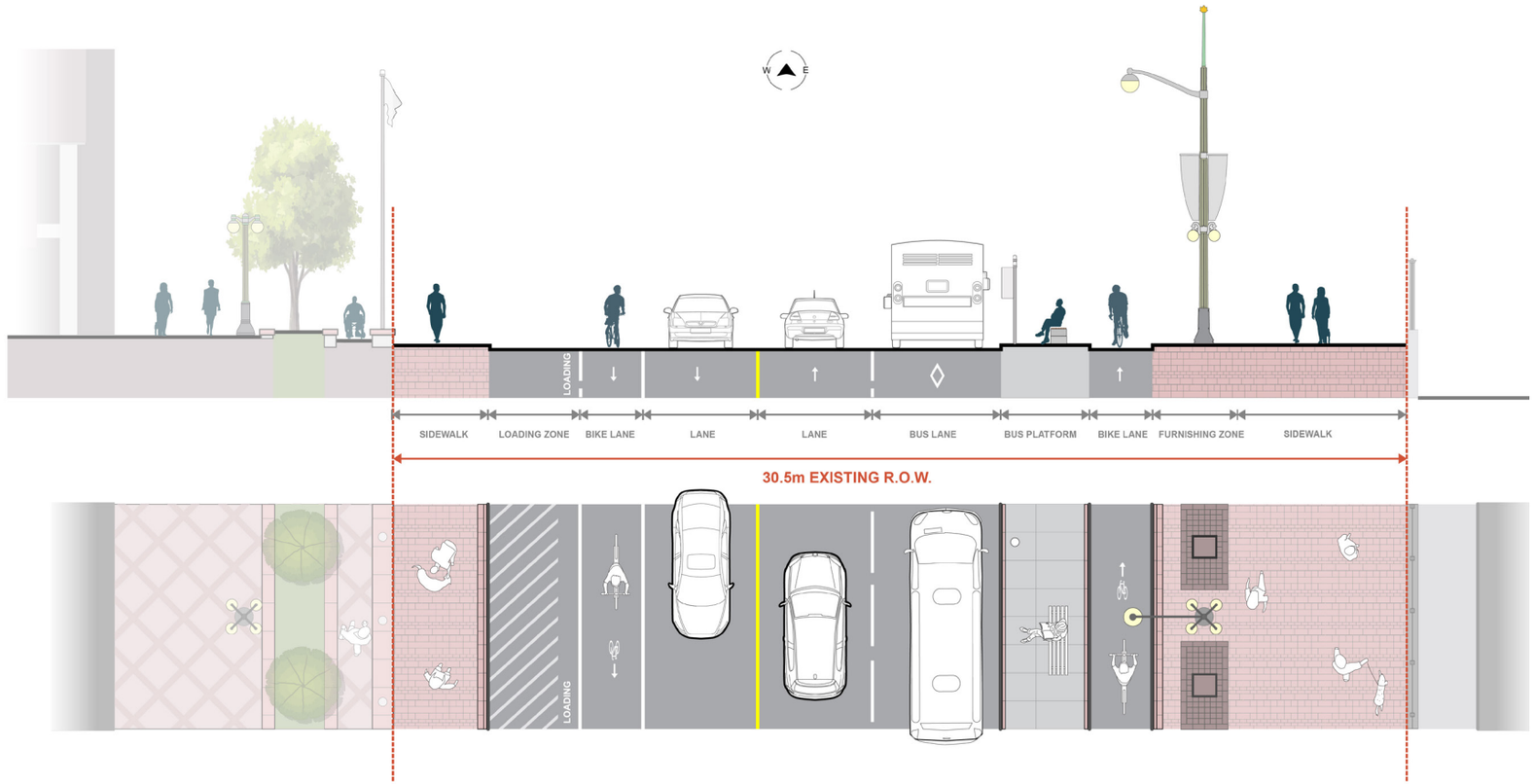
Cross Section L1B



Cross-section L1B: Short-term vision for Rue Laurier, South of Rue de l'Hôtel-de-Ville

Cross Section L2B

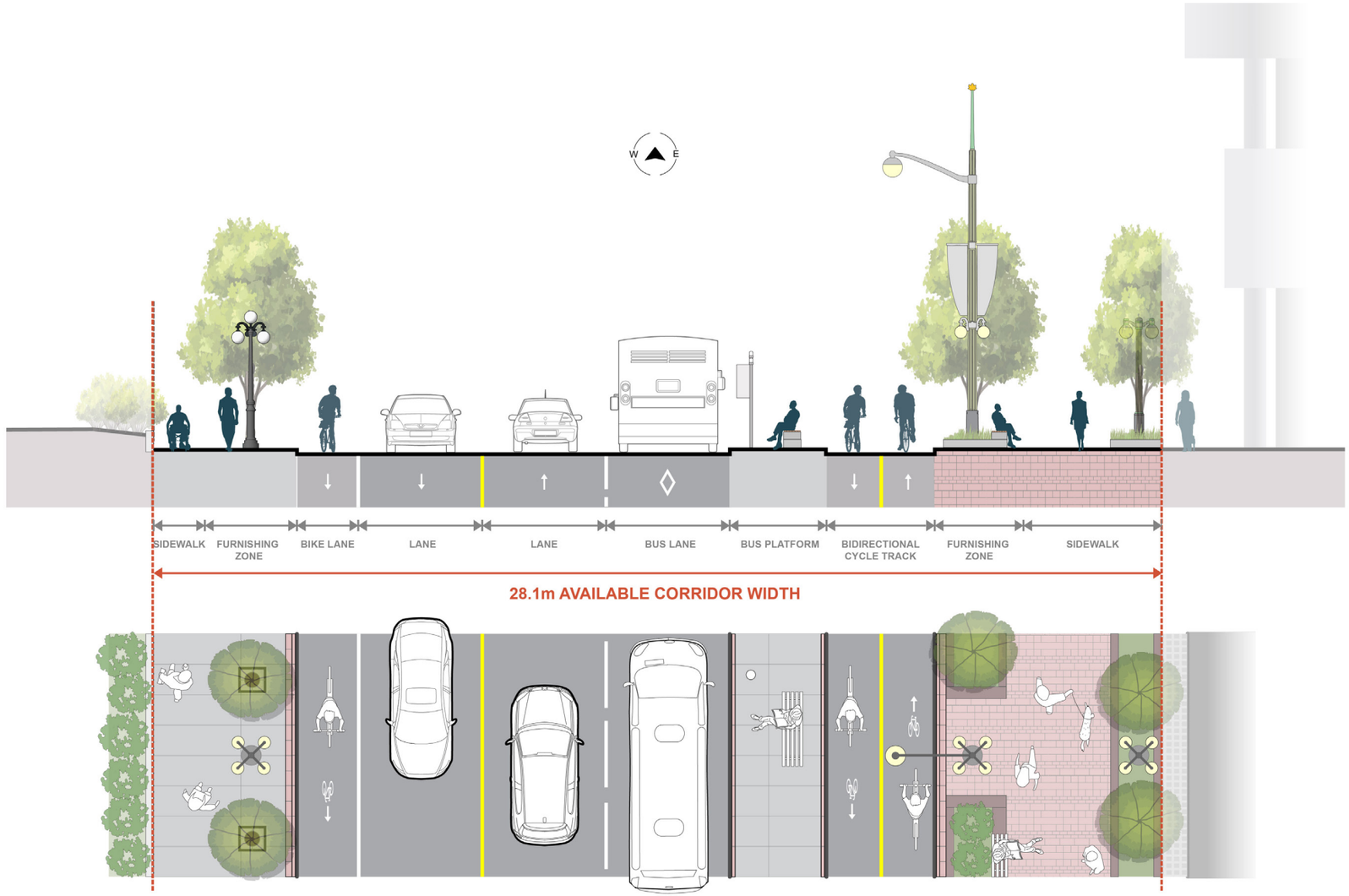
Cross-section L2B demonstrates the integration of an enhanced northbound bus stop and the loading zone for Gatineau's Maison du Citoyen just south of Rue Victoria. The bus platform is constructed as a floating island with minimal impact to overall drainage patterns. Pedestrian access to the platform is provided with a raised crossing, with the bikeway ramping up to sidewalk level to emphasize pedestrian priority and increase accessibility.



Cross-section L2B: Short-term vision for Rue Laurier, between Rue de l'Hôtel-de-Ville and Rue Victoria

Cross Section L3B

Cross-section L3B demonstrates the implementation of a two-way bikeway and an enhanced elongated bus platform along the Canadian Museum of History frontage. It is consistent with the Ville de Gatineau's planned project for the segment, which will include minor drainage modifications and curb line changes to support its implementation. The existing tree plantings, light standards and sidewalk paving remain unmodified. New trees and planters are included in line with the bus platform in areas where buses will not be stopping.



Cross-section L3B: Short-term vision for Rue Laurier, North of Rue Victoria

6.1.4 Alexandra Bridge

Character

The Alexandra Bridge spans 600 metres over the Ottawa River, provides a unique perspective from which to view the Capital landscape and is a major landmark in its own right. The bridge is a significant element in the Capital landscape, and because of its length, a major segment along Confederation Boulevard. It is important that the bridge balance its role as a landmark with the need to provide continuity in the Boulevard experience.

The original bridge is a unique and historic element. It is recognized that the new replacement bridge design will be contemporary in nature, with flowing curves articulating a pared-down aesthetic. While this is stylistically different from the more traditional design styles that form the basis of the Confederation Boulevard family of furnishings, the bridge can interpret, in a contemporary way, the principles of design that underpin Confederation Boulevard. It is the principles that are important; style is simply the way they are expressed.

Priorities

To pursue the guiding principles for the Alexandra Bridge segment, the following priorities are identified:

a. Embellish the public realm to improve the pedestrian experience along the Bridge.
b. Maintain the two-way bikeway as part of the Confederation Boulevard Cycle Loop.
c. Provide the flexibility for a tramway to be implemented along the bridge.

Figure 61: Rendering of the selected design concept for the Alexandra Bridge replacement

Guidelines

The following additional guidelines apply to this segment:

- The design language of Confederation Boulevard along Alexandra Bridge must have continuity from the approach/landing areas (that are on terra firma) to the span. Avoid abrupt changes in scale and materials on the span.
- Key design elements of Confederation Boulevard that should be integrated into the design of the bridge are:
  - The string of pearls: ensuring the lighting expression is articulated as a series of globe light sources aligned in a regular rhythm. This concept takes precedence over “dark-sky” guidelines.
  - The red carpet: providing red unit paving within the pedestrian zone.
  - Materiality: use of the same materials including red granite, concrete, steel, timber in seating elements, and bronze or copper accents.
- Design language: articulated base-middle-top design of elements such as balustrades, fences, furniture and lighting.
- Design components on the bridge, such as barriers, balustrades and seating, should be considered new additions to the Confederation Boulevard family of furnishings and designed in that style and expression, incorporating flowing curves where possible and appropriate.
- Provide pedestrian amenities along the bridge for resting and viewing. Consider providing shade.
- Separation of pedestrian and cycling zones should be consistent with other areas of the Boulevard; use spatial separation, furniture, planting and/or textured paving. Ensure adequate tactile guidance is provided for pedestrians with vision impairments. Avoid bollards.
- Separation and safety barriers between vehicular and active transportation zones should take into account their contribution to the public realm. Articulate design details and choose compatible materials. Avoid purely utilitarian solutions.
- Consider bioswales along the approach to the bridge, such as at the foot of the rock face below the National Gallery.

6.1.5 Mackenzie Avenue

Character

Mackenzie Avenue benefits from edges that include the beautifully designed architecture of heritage buildings, and Major's Hill Park, which create a strong frame and a memorable urban environment. The Confederation Boulevard streetscape is for the most part fully realized along this segment. Future projects can focus on adding trees, particularly beside Chateau Laurier, and enhanced pedestrian amenities such as additional seating.

Along Major's Hill Park, the sidewalk is wide and accommodates a second row of street trees. Combined with the open planters, this edge is lush and green. The U.S. Embassy, opposite, has the potential to contribute to the streetscape quality by replacing the security bollards with an integrated landscaping and security strategy that focuses on planters and greening, mirroring the Major's Hill Park side.

Priorities

To pursue the guiding principles for the Mackenzie Avenue segment, the following priorities are identified:

a. Enhance greening by implementing soil cells and other tree planting best practices and by adding planters.
b. Maintain the pedestrian and vehicular Confederation Boulevard family of light standards including the double row of pedestrian poles on the Esplanade.
c. Provide the flexibility for a potential tramway to be implemented along the street to complete the Interprovincial Transit Loop.
d. Reduce the visual impact of security measures by replacing them with dual-purpose devices such as security benches and security planters.
e. Eliminate sidewalk parking along the Château Laurier.

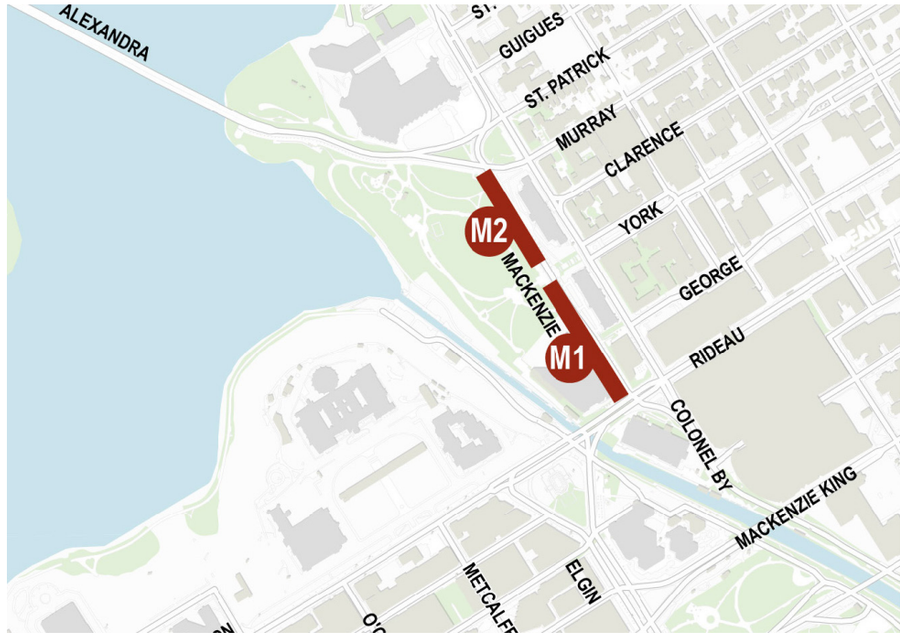


Figure 62: Mackenzie Avenue key plan

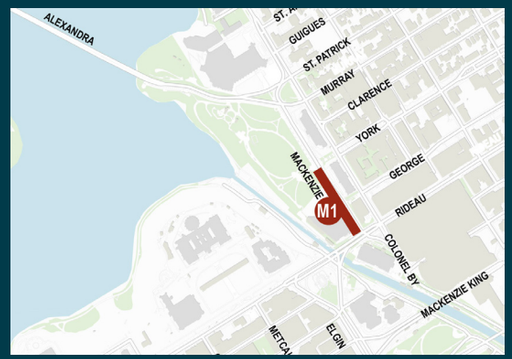
Subsegments

The Mackenzie Avenue segment is divided into subsegments M1 and M2, divided at the York Street steps. Subsegment M1 extends south from the stairs to the Rideau-Sussex node. Château Laurier is to the west, and the Connaught Building is to the east. Subsegment M2 extends north from the stairs to the Peacekeeping Monument node. Major's Hill Park is to the west, and the U.S. Embassy is to the east. The embassy frontage has enhanced security measures, including a double row of security bollards.

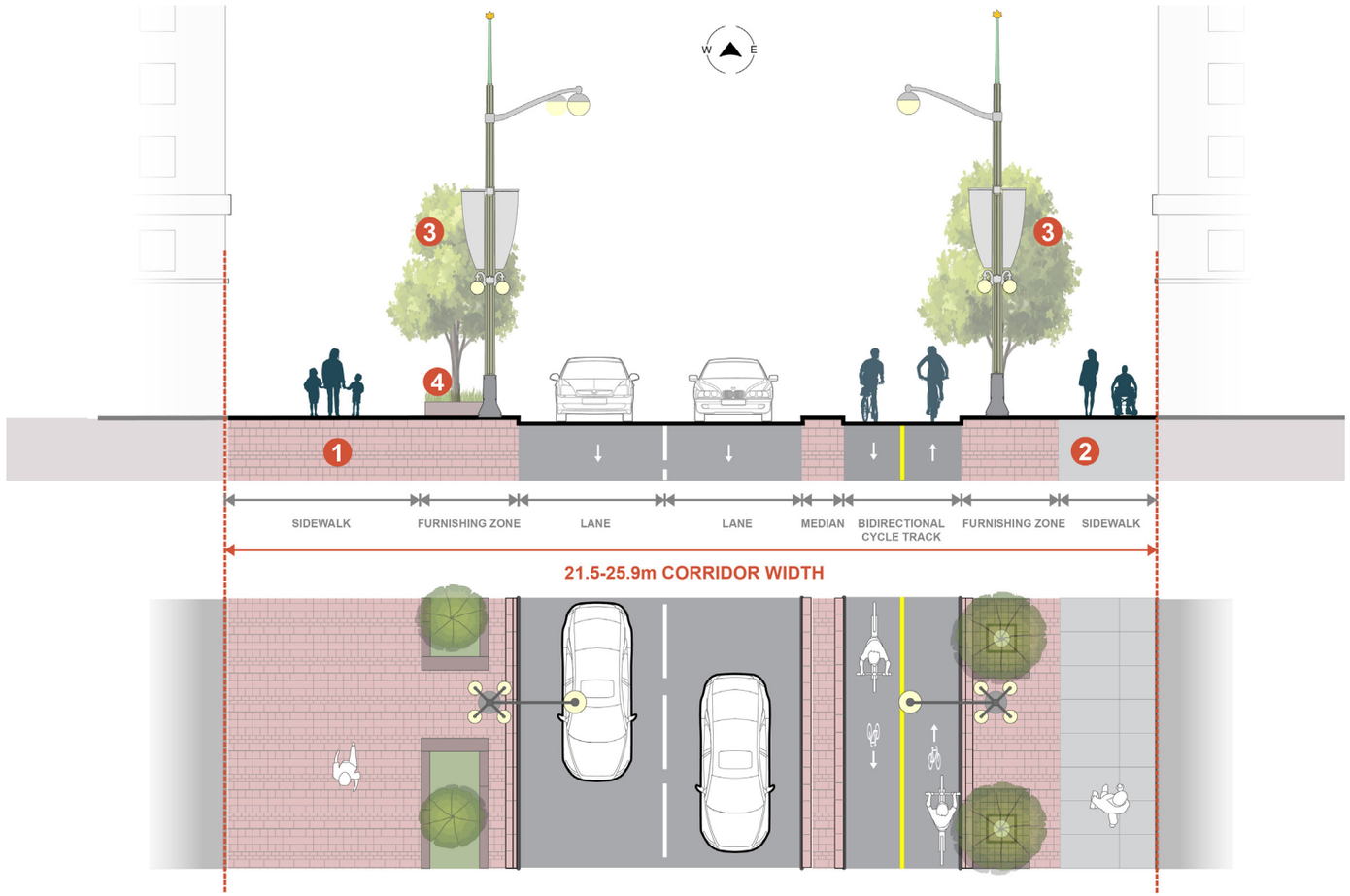
Demonstration Cross-sections

Demonstration cross-sections are provided for each subsegment to guide the future design of this segment. They demonstrate a potential arrangement in which the Interprovincial Transit Loop is not yet implemented, or is implemented using rubber-tired vehicle technology.

Cross Section M1

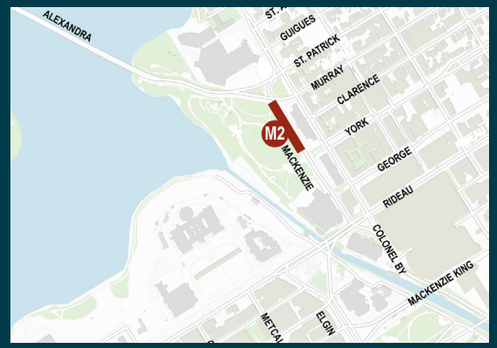


Cross-section M1 demonstrates enhanced greening through the addition of planters and trees along the west side. The planters could be designed to serve a dual purpose as security devices if hostile vehicle mitigation is determined to be required along Château Laurier frontage in the future.



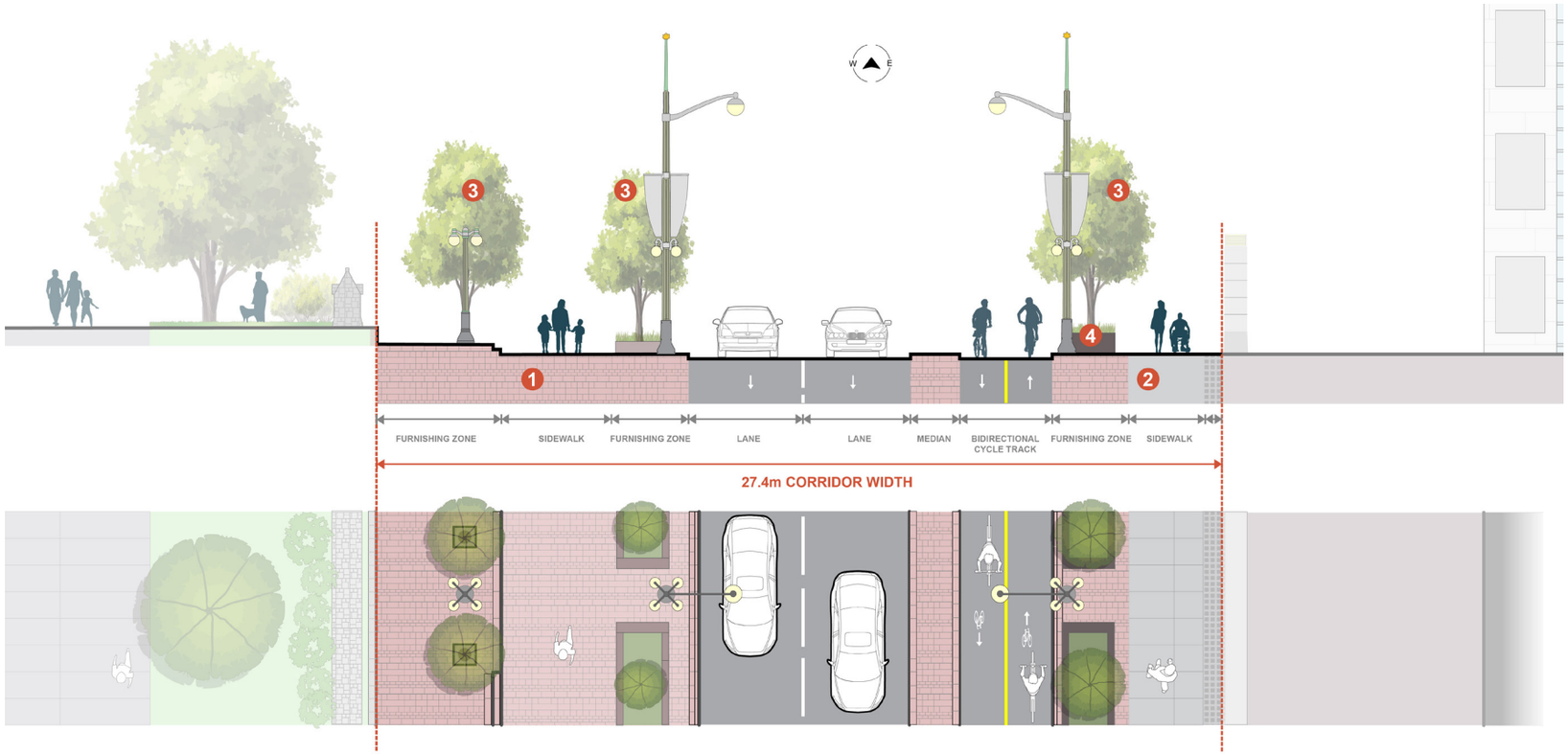
Cross-section M1: Mackenzie Avenue Segment, South Subsegment (Rideau Street to York Street Steps)

1. Esplanade or Inner Ring side: sidewalk is unit paving
2. Outer Ring side: concrete sidewalk with unit paving band in furnishing zone
3. Single row of trees on both sides of the street; open planters on west side and tree grates on east side
4. Use streetscape furniture and elements to prevent sidewalk parking along the Château Laurier.



Cross-section M2 demonstrates enhanced greening through the replacement of tree grates on the west side with open-topped planters for enhanced tree health and to accommodate additional smaller plantings.

Cross Section M2



Cross-section M2: Mackenzie Avenue Segment, North Subsegment (York Street Steps to Peacekeeping Monument)

1. Esplanade or Inner Ring side: sidewalk is unit paving
2. Outer Ring side: concrete sidewalk with unit paving band in furnishing zone
3. Double row of trees on west side in open planters or tree grates; single row of trees on east side in open planters
4. Potential integrated security planters along U.S. Embassy and removal of bollards

6.1.6 Sussex Drive South

Character

With a variable right-of-way of between 20 and 26.2 metres, Sussex Drive has one of the narrowest rights-of-way along Confederation Boulevard. This requires judicious choices about the available space. The sidewalk along the east side is narrow and is without street trees today; however, the beautiful heritage buildings, and the active retail uses, are strong frames for the busy streetscape. In the long term, there is an opportunity to remove a vehicular travel lane to provide more space for cyclists and pedestrians, and street trees on both sides of the street.

Sussex Drive is part of "The Mile of History," a ceremonial route that predates the creation of Confederation Boulevard and was purposefully conserved by the NCC as a streetscape of historic interest. It also forms part of the ByWard Market Heritage Conservation District, one of Ottawa's two original settlement areas. This segment of the Boulevard has a special character defined by the historic Confederation-era commercial buildings on the east side that have been restored or reconstructed. Many of these properties fronting Sussex Drive are now federal heritage buildings, national historic sites.

The planned rejuvenation of the ByWard Market public realm will make the connecting streets more inviting, create better pedestrian connections to Confederation Boulevard and introduce a contemporary paving and furnishing strategy, including the replacement of the historic globe lights in the Market. However, along Sussex Drive, the Confederation Boulevard paving, lighting and furnishing strategy should prevail, including the globe-style lights. Should the older globe lights ever need replacement, they should be replaced with fixtures consistent with the Confederation Boulevard family.

Priorities

To pursue the guiding principles for the Sussex Drive South segment, the following priorities are identified:

a. Widen sidewalks to improve their capacity, considering the prominence of this street in the Core Area.
b. Embellish the public realm to improve the pedestrian experience along the ByWard Market.
c. Introduce a two-way bikeway, preferably along the east side of the street for best connectivity to and from the ByWard Market.
d. Provide the flexibility for a potential tramway to be implemented along the street to complete the Interprovincial Transit Loop.
e. Reduce the visual impact of security measures by replacing them with dual-purpose devices such as security benches and security planters.
f. To guide the future design, construction and operation of this segment, a set of demonstrations is provided below. These demonstrations illustrate possible cross-sectional arrangements of this street. This set of demonstrations responds to possible future functions of Sussex - South for which decisions have not been made at this time. In turn, these demonstrations may inform future decision making for Sussex Drive South.

Subsegments

The Sussex Drive South segment is divided into subsegments S1 and S2, divided at the York Street steps. Subsegment S1 extends south from the stairs to the Rideau-Sussex node. The Connaught Building is to the west, and the ByWard Market is to the east. Subsegment S2 extends north from the stairs to the Peacekeeping Monument node. The U.S. Embassy is to the west, and the ByWard Market is to the east. The embassy frontage has enhanced security measures, including a prominent row of security bollards.

Figure 63: Sussex Drive South key plan

Scenarios and Demonstration Cross-sections

Demonstration cross-sections are provided for two scenarios to guide the future design of this segment. The long-term scenario assumes a reconstruction of the street, allowing more comprehensive modifications to address design priorities, but requires a large investment and multi-agency coordination to achieve. As this may be expected to occur in a mid- to long-term horizon, it will be important to consider opportunities for interim improvements.

The short-term scenario reflects incremental improvements that can be achieved without the need for reconstruction and permanent traffic lane reductions. These enhance cycling comfort and safety by converting the northbound bike lane into a raised cycle track. The reduced curb-to-curb width will help lower motor vehicle operating speeds, which is especially important adjacent to the ByWard Market.

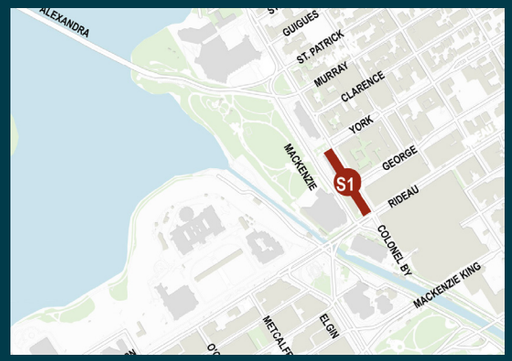
Scenario A: Long-Term Scenario

This scenario represents a vision that strongly addresses principles and guidelines for the Boulevard by rebalancing away from vehicular traffic in favour of enhancing pedestrian facilities, cycling facilities and corridor greening. It demonstrates a potential arrangement in which the Interprovincial Transit Loop is not yet implemented, or is implemented using buses or a rubber-tired tram. The reduction of traffic lanes would need to be supported by a traffic study, and mitigation measures may be needed elsewhere in the road network to accommodate traffic diversion.

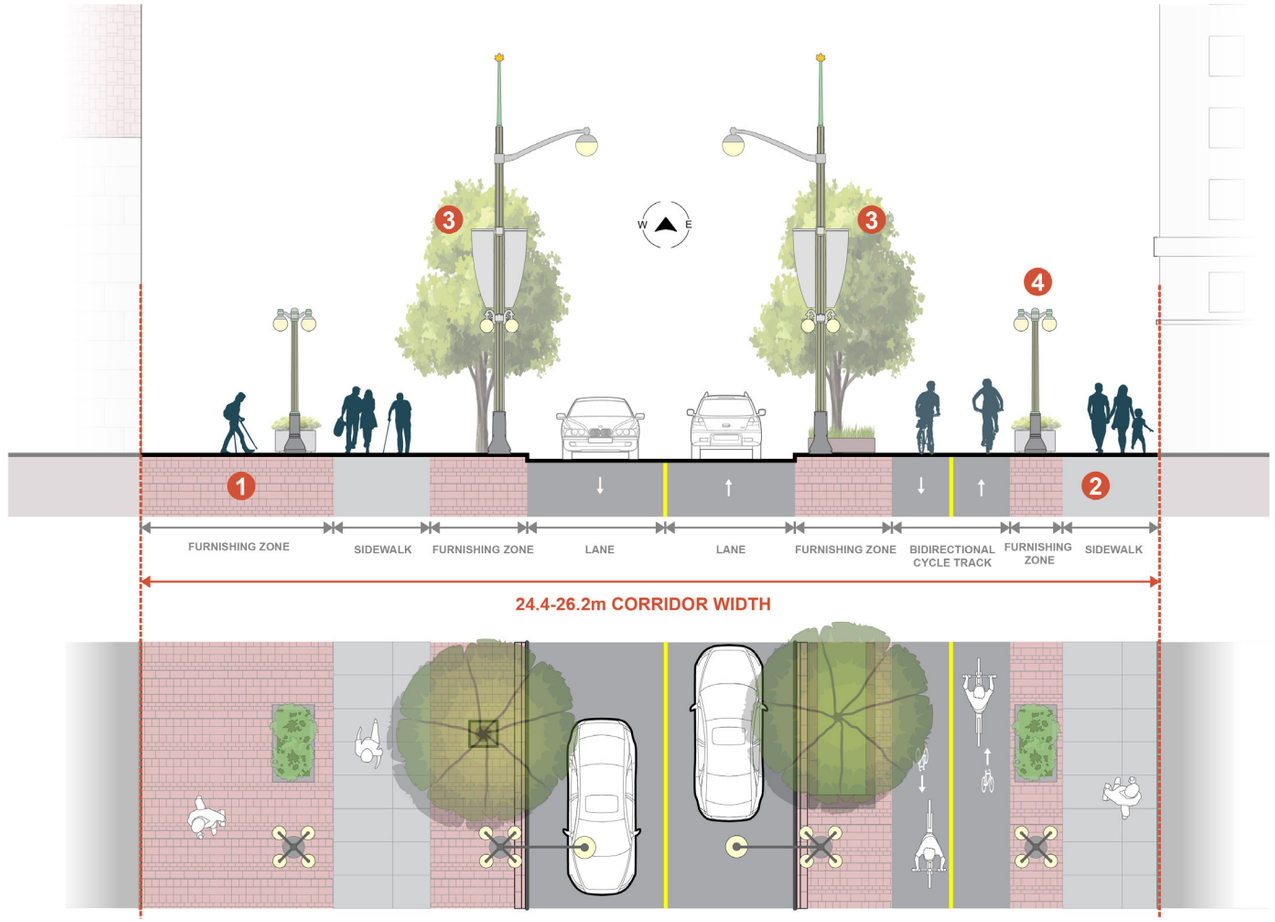
The lane reduction provides space to accommodate widened sidewalks, the introduction of a two-way bikeway and the addition of a row of trees on the east side. The row of trees enhances greening, shades pedestrians and cyclists, and provides a buffer between these users and traffic.

The associated reconstruction should be planned in coordination with street surface and underground utility lifecycle replacement needs for best cost efficiency.

Cross Section S1A

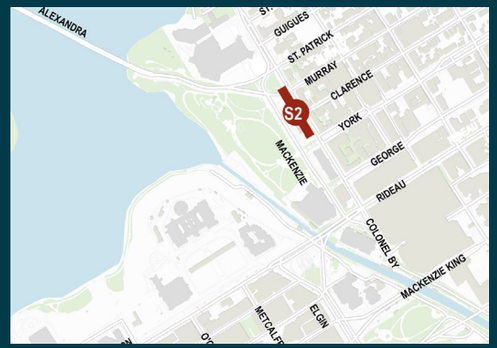


Cross-section S1A demonstrates these modifications in the south subsegment, where traffic is reduced to one lane in each direction.



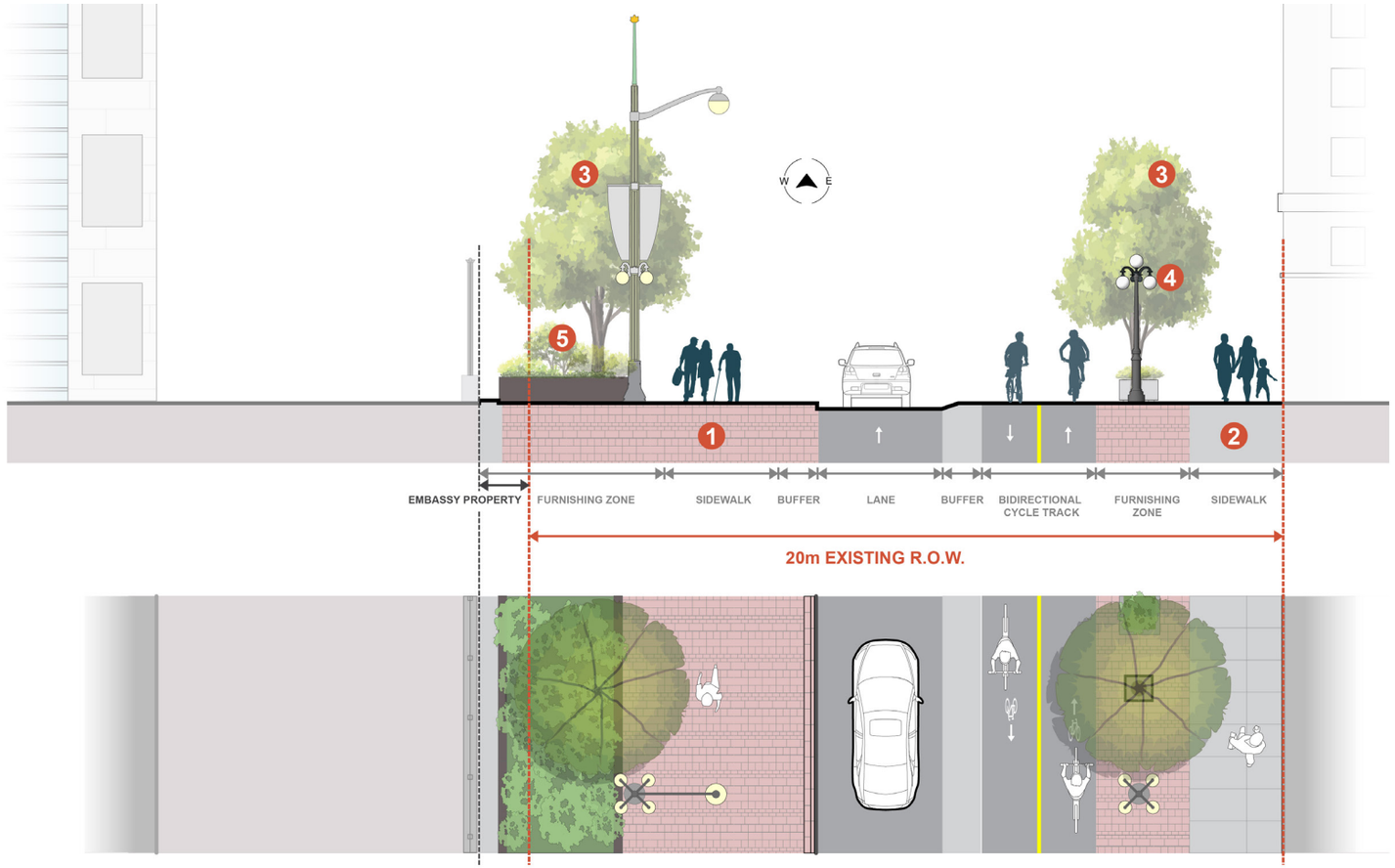
Cross-section S1A: Long-term vision for Sussex Drive South Segment, South Subsegment (Rideau Street to York Street Steps)

1. Esplanade or Inner Ring side: sidewalk is unit paving
2. Outer Ring side: concrete sidewalk with unit paving band in furnishing zone
3. Single row of trees on both sides of the street in tree grates
4. Confederation Boulevard fixtures for pedestrian lighting



Cross-section S2A demonstrates similar modifications in the north subsegment, where traffic is reduced to one northbound traffic lane. The cycle track buffer uses a mountable curb to accommodate the passage of emergency vehicles, which can mount the cycle track to bypass traffic queues when required. This cross-section nevertheless has reduced resiliency, as a stalled car could block traffic and transit service.

Cross Section S2A

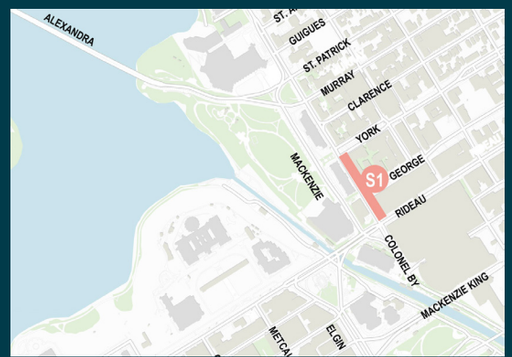


Cross-section S2A: Long-term vision for Sussex Drive South Segment, North Subsegment (York Street Steps to Peacekeeping Monument)

1. Esplanade or Inner Ring side: sidewalk is unit paving
2. Outer Ring side: concrete sidewalk with unit paving band in furnishing zone
3. Single row of trees on both sides of the street in tree grates
4. Older style globe fixtures for pedestrian lighting
5. Potential integrated security planters along U.S. Embassy and removal of bollards

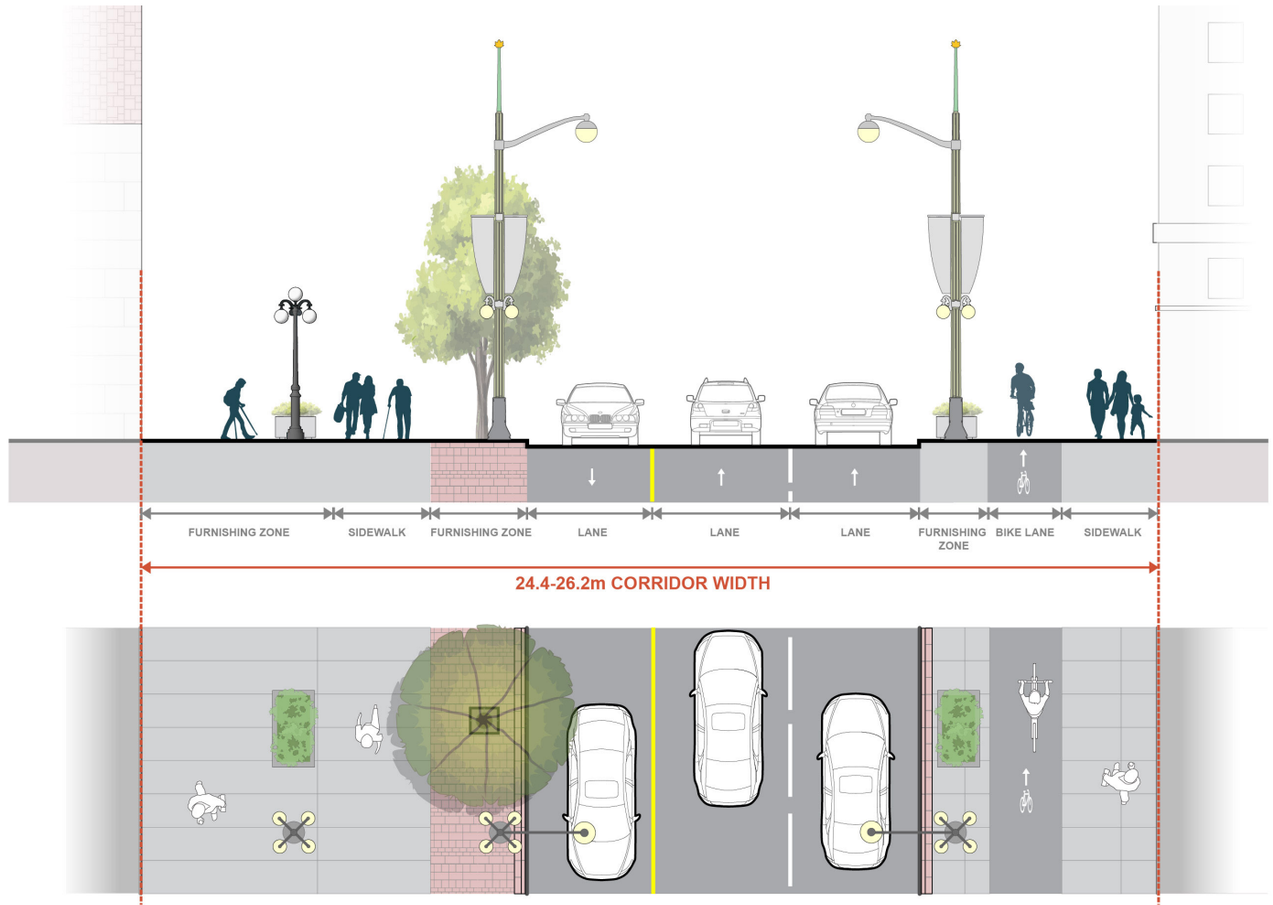
Scenario B: Short-Term Scenario

This scenario represents the conversion of the northbound bike lane to a cycle track, only requiring partial reconstruction of the road and not requiring a permanent reduction in travel lanes. The furnishing zone is shifted to the roadside of the cycle track, buffering cyclists from traffic. This modification also increases the buffer between pedestrians on the east side sidewalk and traffic, enhancing pedestrian comfort.

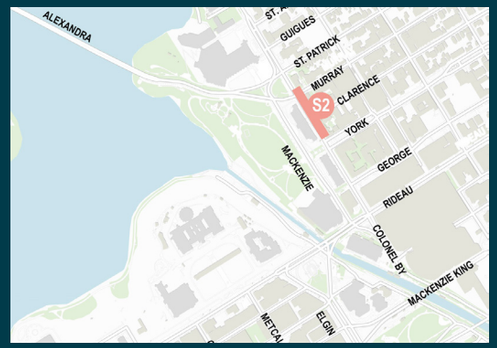


Cross-section S1B demonstrates the implementation of the short-term conversion of the northbound bike lane to a cycle track.

Cross Section S1B

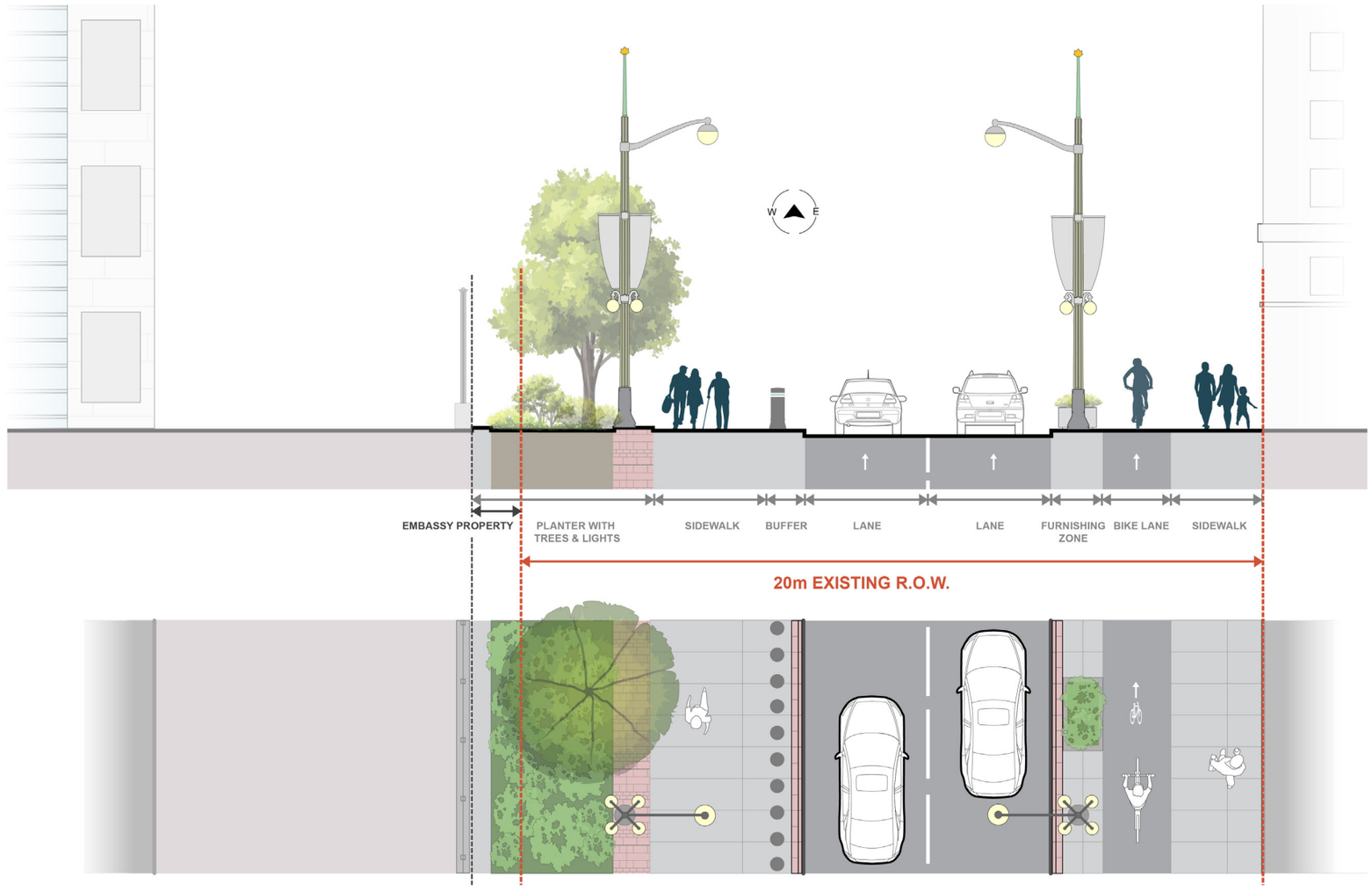


Cross-section S1B: Short-term vision for Sussex Drive South Segment, South Subsegment (Rideau Street to York Street Steps)



Cross-section S2B demonstrates the implementation of the short-term conversion of the northbound bike lane to a cycle track.

Cross Section S2B



Cross-section S2B: Short-term vision for Sussex Drive South Segment, North Subsegment (York Street Steps to Peacekeeping Monument)

6.1.7 Sussex Drive North

Character

North of St. Patrick Street, Sussex Drive is an extension of Confederation Boulevard, not part of the Linking Ring. Extensions have their own design character, much of which is established already, including the grey granite curbs and cobbles.

From St. Patrick Street to Bolton Street, Sussex Drive passes by notable institutions including the National Gallery of Canada and the Royal Canadian Mint. The right-of-way is framed by buildings and other built features at the property line, with the existing traffic lanes and sidewalk effectively filling the entire available width.

North of the Royal Canadian Mint, the character of Sussex Drive is of a much more diluted urban fabric. There are several public open spaces, and buildings have large setbacks, but the 2025 Core Area Plan anticipates gradual repair of the urban fabric through reinstatement of building edges at key locations. There are two federal heritage buildings. There is an opportunity to provide street trees on adjacent properties to frame the edges of Confederation Boulevard along portions of this segment. While not as busy from a pedestrian perspective, the globe pedestrian and vehicular lighting and the red unit paving used as accent banding will tie this segment together with the Linking Ring, in preparation for a future that will feature a more continuous built edge. This segment extends to the Rideau Hall node with a roundabout at Rideau Gate and Princess Avenue.

Priorities

To pursue the guiding principles for the Sussex Drive North segment, the following priorities are identified:

a. Gradually reduce the arterial effect of the street's cross-section for enhanced pedestrian comfort and safety.
b. Embellish the public realm to improve the pedestrian experience along the International Precinct, considering the street's ceremonial importance.
c. Enable the completion of the cycling connection between the Rideau Canal and Rideau Falls by adding a two-way bikeway to the river side of the street. Enhance the one-way northbound bikeway on the other side of the street in support of local connectivity.
d. Seek opportunities to enhance tree plantings for greening and to shade pedestrians and cyclists.

e. Enhance sustainability by considering the addition of a bioswale in the median.
f. Complete a traffic study to determine whether a lane reduction is feasible, which would allow space to be repurposed for cycling facilities and additional greening.
g. When new buildings are built along the edges of some key parcels, explore the accommodation of on-street flex space within those segments, which could be programmed for a variety of uses including street parking, parkettes and patios.

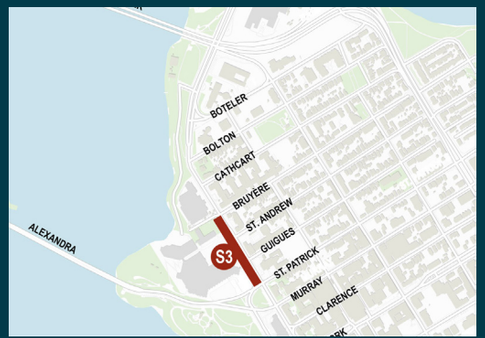
Subsegments

The Sussex Drive North segment is divided into subsegments S3, S4 and S5. Subsegment S3 extends from St. Patrick Street to Bruyère Street, with the National Art Gallery on the west side. Subsegment S4 extends from Bruyère Street to Boteler Street, with the Royal Canadian Mint on the west side. It has the most constrained cross-section of Sussex Drive North. Subsegment S5 extends north from Boteler Street to King Edward Avenue. While the existing roadway and sidewalks still fill the entire right-of-way in this subsegment, buildings have large setbacks and the properties are largely federally owned, opening up the possibility of adding new buildings to better frame the street, or at select locations, adding greening on adjacent lands and improving active transportation facilities.

Demonstration Cross-sections

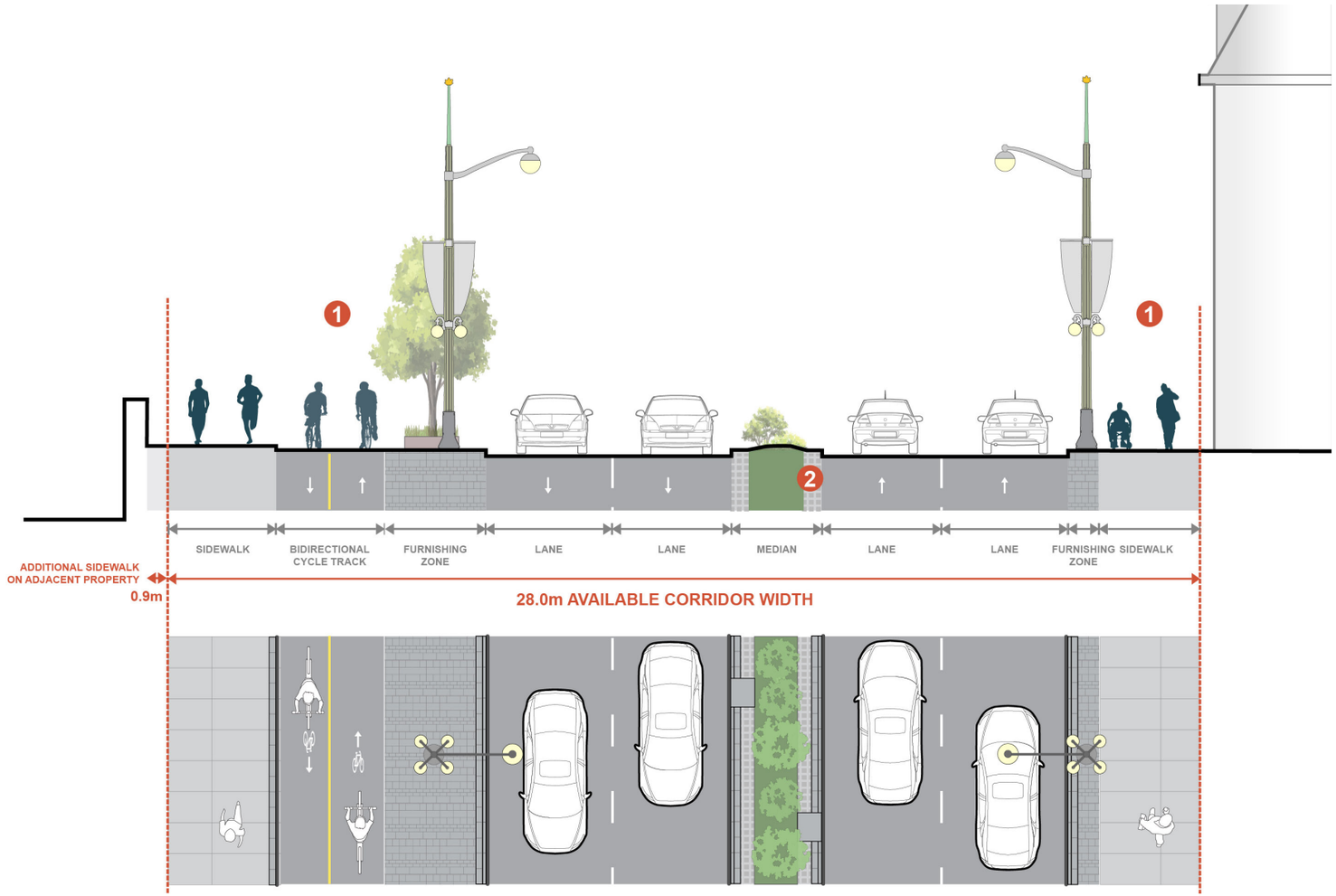
Demonstration cross-sections are provided to guide the future design of this segment. They illustrate enhancements to pedestrian facilities, cycling facilities and greening while maintaining two traffic lanes in each direction. A north side two-way cycle track would form part of the cycling connection between the Rideau Canal and Rideau Falls.

Cross Section S3



Cross-section S3 demonstrates the conversion of the southbound cycle track to a two-way cycle track. A treed boulevard is established between traffic lanes and the cycle tracks to increase cyclist safety and comfort. It also increases pedestrian separation from traffic, introduces street trees to the subsegment and provides shading for pedestrians and cyclists. The median plantings are replaced with a bioswale, enhancing sustainability while maintaining the character of the corridor.

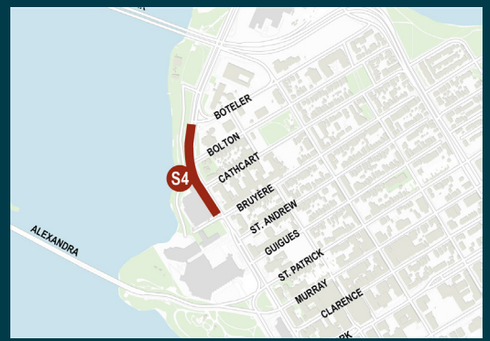
Due to spatial constraints, the northbound bike lane is eliminated in favour of higher-quality facilities on the west side, which will support the completion of the cycling connection between the Rideau Canal and Rideau Falls. Alternatively, if traffic studies support a reduction in traffic lane count, the space that is freed could be reallocated for a northbound cycle track and a wider boulevard with tree planting on the east side.



Cross-section S3: Sussex Drive North Segment (St. Patrick Street to Bruyère Street)

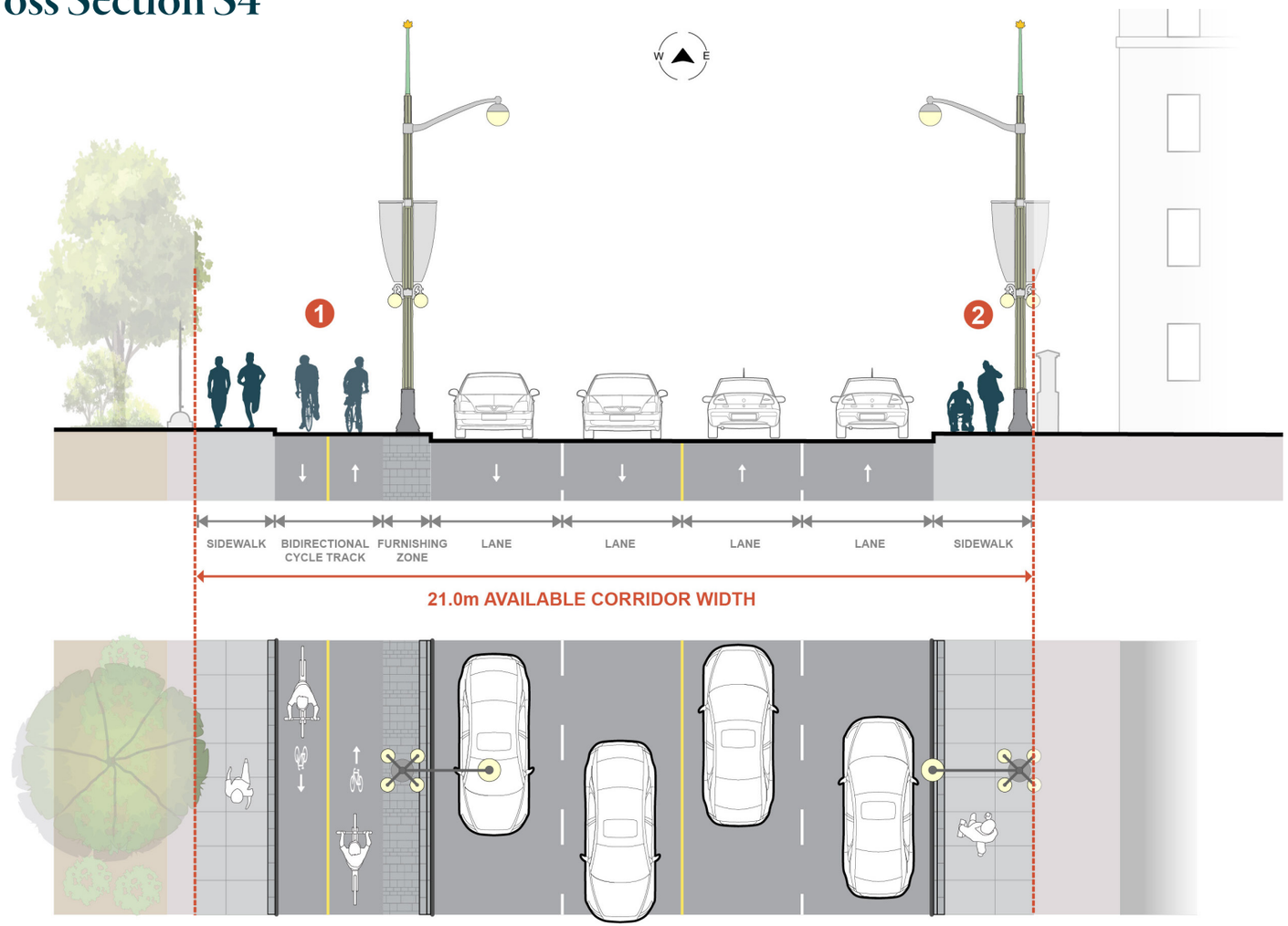
1. Concrete sidewalk with unit paving in furnishing zone on both sides
2. Opportunity for a bioswale in the central median

Cross Section S4



Cross-section S4 demonstrates the conversion of the southbound cycle track to a two-way cycle track. A narrow boulevard is established between traffic lanes and the cycle tracks to increase cyclist safety and comfort. It also increases pedestrian separation from traffic.

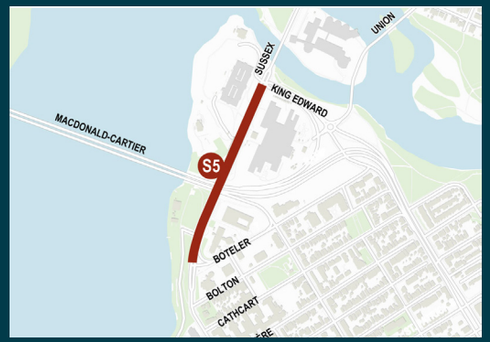
Due to spatial constraints, the northbound bike lane is eliminated in favour of higher-quality facilities on the west side, which will support the completion of the cycling connection between the Rideau Canal and Rideau Falls. Alternatively, if traffic study supports a reduction in traffic lane count, the space that is freed could be reallocated for a northbound cycle track on the east side and wider boulevards with tree planting on both sides of the street.



Cross-section S4: Sussex Drive North Segment (Bruyère Street to Boteler Street)

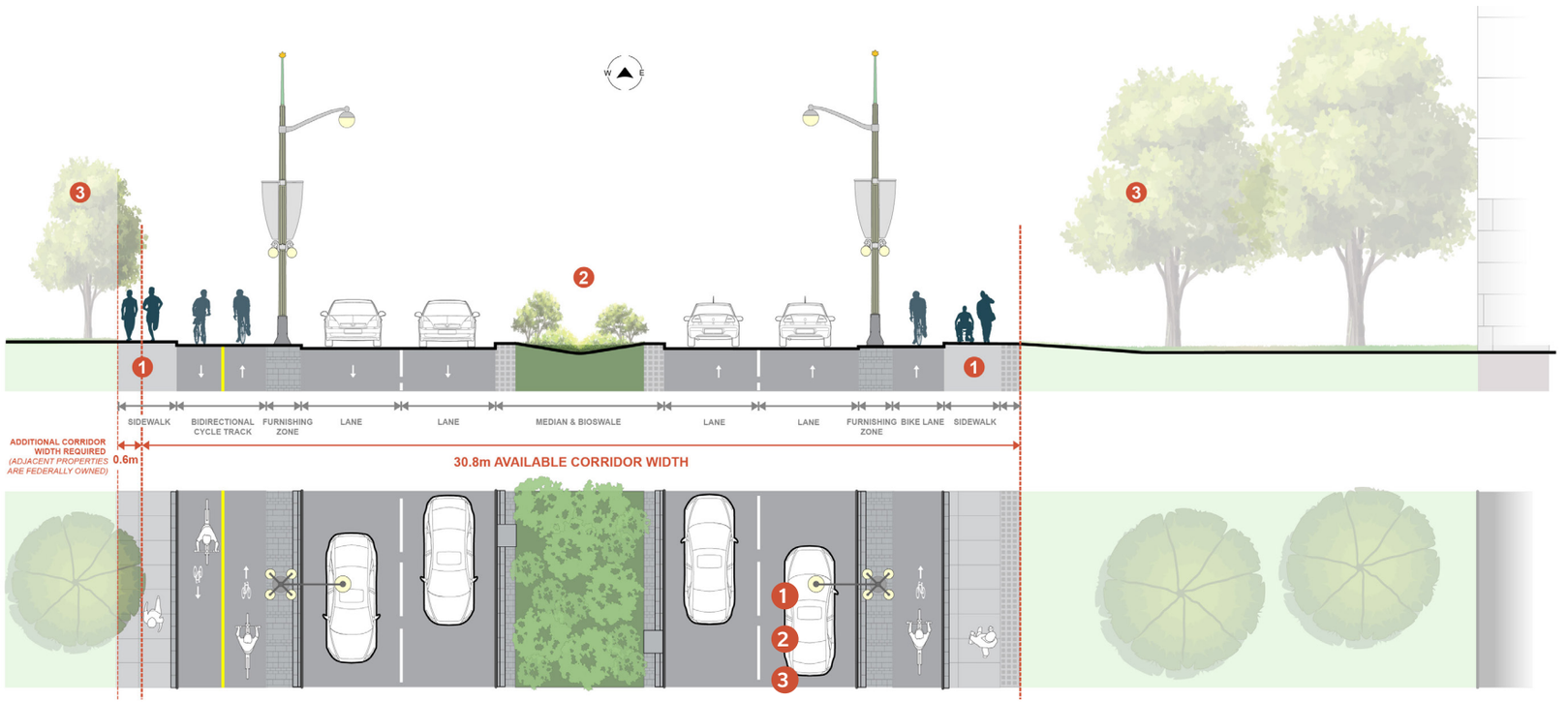
1. River side: concrete sidewalk with unit paving in furnishing zone
2. City side: concrete sidewalk

Cross Section S5



Cross-section S5 demonstrates the conversion of the northbound bike lane to a northbound cycle track, and the conversion of the southbound bike lane to a two-way cycle track. A buffer zone is established between traffic lanes and the cycle tracks to increase cyclist safety and comfort. It also increases pedestrian separation from traffic. The west side enhancements require a minor widening beyond the current right-of-way limit; however, all affected properties are federally owned.

The median plantings are replaced with a large bioswale, enhancing sustainability while maintaining the character of the corridor. Due to spatial constraints, adjacent properties are relied upon for tree planting on both sides of the street. Most adjacent properties are federally owned. Alternatively, if traffic study supports a reduction in traffic lane count, the space that is freed could be reallocated to the public realm. This could include a combination of street tree plantings and streetside flex space, a concept that has been successfully implemented on Elgin Street south of Confederation Boulevard. Flex space is divided from the carriageway with mountable curb and surfaced with pavers. Flex space can be programmed for various uses as needs change, with potential uses including loading zones, street parking, patios for restaurants and parkettes.



Cross-section S5: Sussex Drive North Segment (Boteler Street to King Edward Avenue)

1. Concrete sidewalk with unit paving in furnishing zone on both sides
2. Opportunity for a bioswale in the central median
3. Potential street trees on adjacent properties

Concept Sketch 4: Sussex Drive North

6.1.8 Elgin Street

Character

Elgin Street widens as it approaches Laurier Avenue, where Confederation Boulevard begins, and becomes a grand avenue leading to Confederation Square. Sidewalks are very wide and have a double row of light standards to frame the pedestrian procession. Grey granite cobbles in the boulevards and medians, and grey granite curbs help define the street's unique character as an extension of Confederation Boulevard. Over time, streetscape renewal should maintain these features, seek to increase tree canopy and ensure the orderly repetition of street furniture reinforces the street's visual continuity. Transition to the urban fabric is envisioned to be gradual.

Priorities

To pursue the guiding principles for the Elgin Street segment, the following priorities are identified:

a. Widen sidewalks to improve their capacity considering the prominence of this street in the Core Area and its emphasis on transit.
b. Embellish the public realm to improve the pedestrian experience along Elgin.
c. Provide the flexibility for a tramway to be implemented on the west leg of Elgin north of Queen Street.
d. Accommodate cyclists by adding one-way cycle tracks.
e. Reduce the count of traffic lanes while maintaining sufficient capacity for transit buses and general traffic.
f. Improve greening with additional tree planting and planters, ensuring they frame rather than obscure the National War Memorial and other key views.
g. Enhance sustainability by considering the addition of bioswales in the generously sized planting zones.

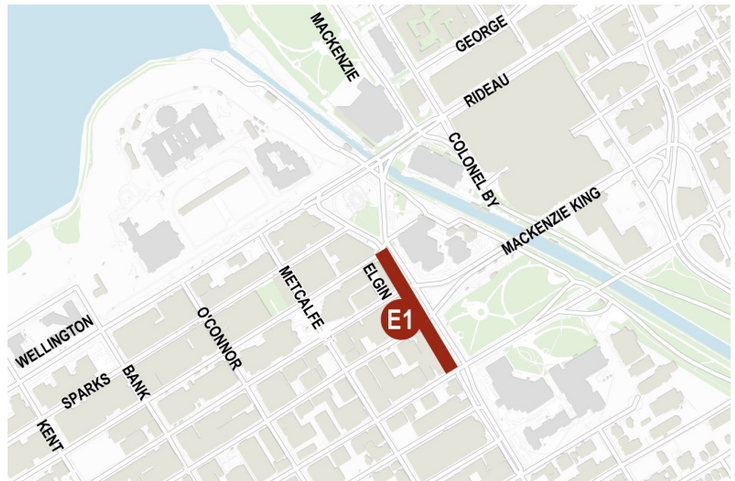


Figure 65: Elgin Street Key Plan

Scenarios and Demonstration Cross-sections

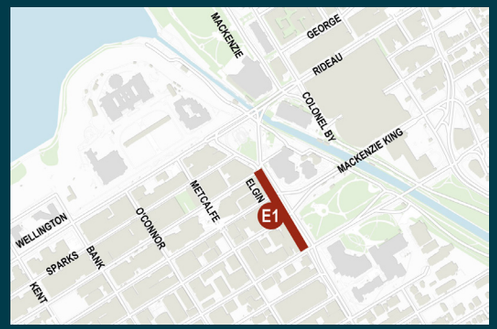
Demonstration cross-sections are provided for two scenarios to guide the future design of this segment. The long-term scenario assumes a reconstruction of the street, allowing more comprehensive modifications to address design priorities, but requires a large investment do so. This is not expected to occur in the near- to mid-term, making it important to consider opportunities for interim improvements.

The short-term scenario reflects incremental improvements that can be achieved without the need for full reconstruction. It will rebalance the segment to better accommodate sustainable mobility choices, rapidly and cost-effectively advancing the Sustainable Mobility key principle.

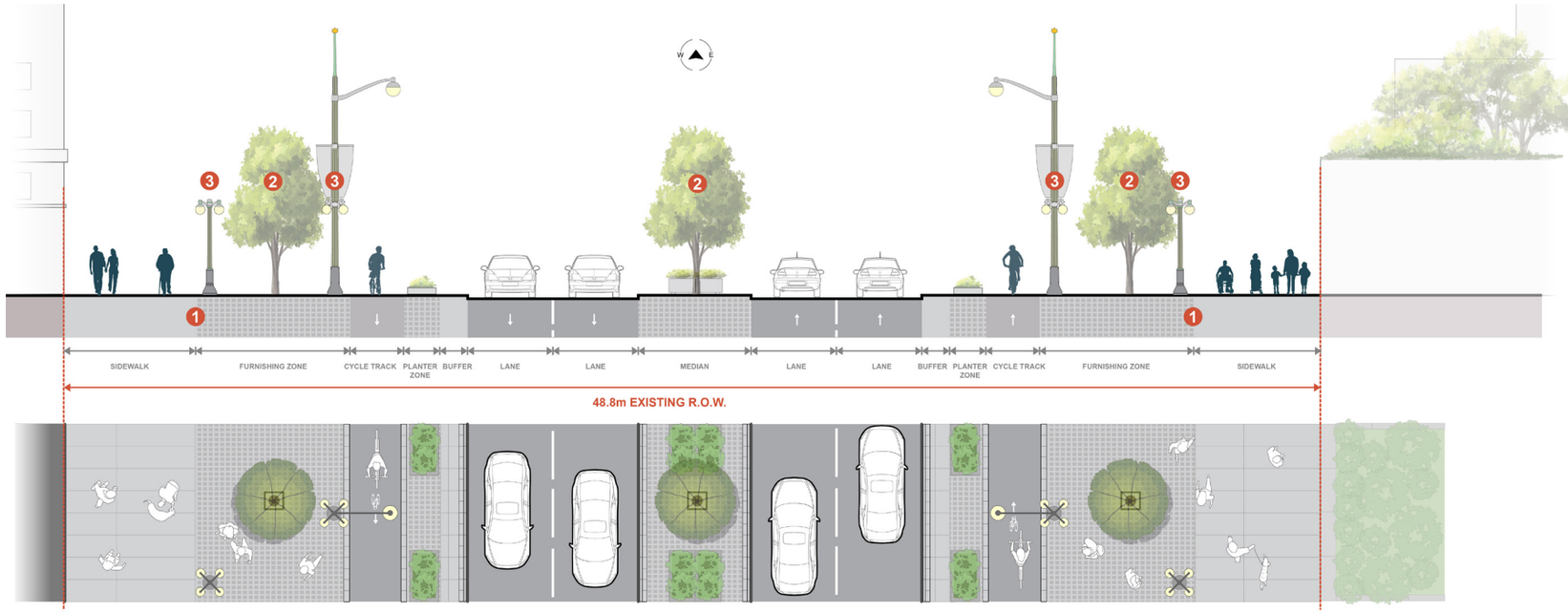
Scenario A: Long-Term Scenario

This scenario represents a vision for Elgin Street that strongly addresses principles and guidelines for the Boulevard. The associated comprehensive reconstruction should be planned in coordination with street surface and underground utility lifecycle replacement needs for best cost-efficiency.

Cross Section E1A



Cross-section E1A demonstrates the replacement of street tree plantings using the latest best practices to maximize tree health and avoid the recurrence of heaving and settling of surrounding cobbles. The grey granite curbs, granite cobbles at the base of trees, and granite cobbles in the median are maintained; new cobbles can be introduced adjacent to the cycling facility. Generously wide concrete sidewalks provide a smooth rolling surface for mobility device users, while the adjacent cobblestones allow additional space for pedestrians during the busiest times. Raised cycle tracks are implemented, with planters providing greening and physical separation from traffic. Trees are added to the central median to further enhance greening of the corridor. The roadway is reduced to two travel lanes in each direction.

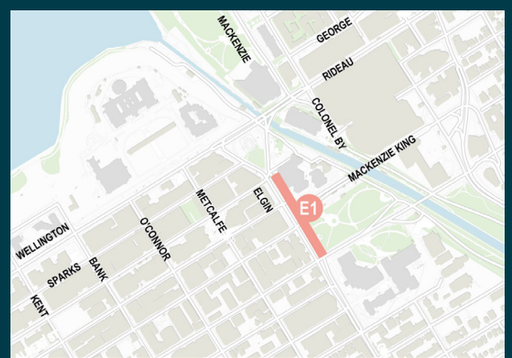


Cross-section E1A: Long-term vision for Elgin Street (Laurier Avenue to Confederation Square)

1. Concrete and cobblestone sidewalks on both sides
2. Single row of trees on both sides, plus trees in the median
3. Double row of light standards

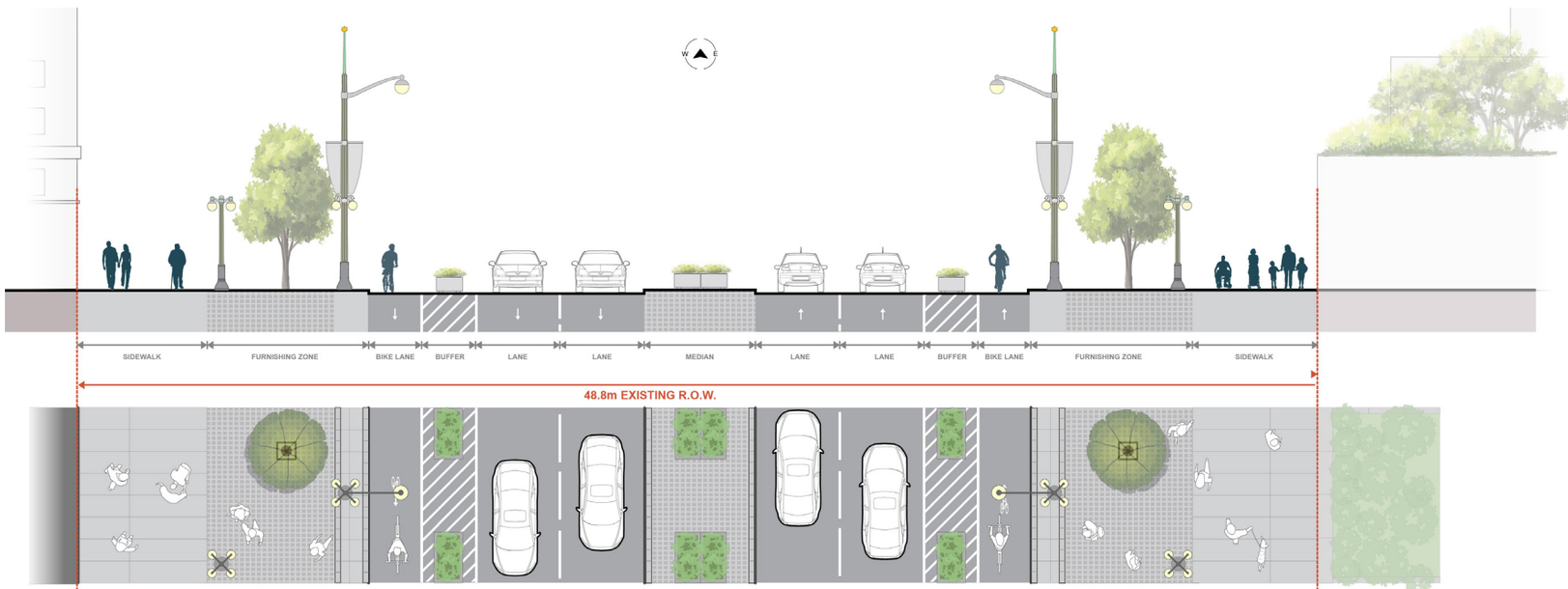
Scenario B: Short-Term Scenario

This scenario represents a similar reduction to two traffic lanes in each direction; however, it uses more cost-effective and lower-impact construction techniques that could allow it to be implemented in a much shorter time frame.



Cross-section E1B demonstrates the implementation of protected bike lanes using pavement markings, signage and precast planters. The planters are dual purpose, providing physical protection for cyclists while also adding greening to the corridor.

Cross Section E1B



Cross-section E1B: Short-term vision for Elgin Street (Laurier Avenue to Confederation Square)

Additional Guidelines: Gateway to the Boulevard

Confederation Boulevard begins at the Elgin Street and Laurier Avenue intersection. It is not a designated node and should not compete in scale with the Primary or Secondary Nodes. However, it has some of the same characteristics due to the presence of Confederation Park, which provides a natural break in the urban fabric and begins the transition to the Capital realm. There are gateway elements in place at this intersection: the taller gateway lights on each side of the street, and the octagonal pedestal with the bronze map of Confederation Boulevard located within the park. Given the scale of Elgin Street and the many competing streetscape elements, the gateway character of this location should be strengthened through the following streetscape elements:

- Provide additional tall gateway lighting at the curb edge and in the medians, using clustering or repetition of lights. This will help create a visual pinch point or threshold that frames the view of the National War Memorial.
- Use unit pavers in the vehicular lanes in the centre of the Elgin Street/Laurier Avenue intersection, to help calm traffic and signal pedestrian priority.
- Introduce additional paving and furniture elements from the Confederation Boulevard family, such as sidewalk inserts and seating, that reinforce the distinct design language of the Boulevard.

6.2 Primary Nodes

Confederation Boulevard has seven Primary Nodes, each with a different existing and planned character and function. Refer to **Figure 66** for a key plan of the Primary Nodes. Some of the nodes have been completed and are fully realized places, while others have yet to be developed.

Public realm changes to the completed nodes will not change their character and function. Rather, they will make incremental improvements to them by adding new amenities and functionality such as cycling routes, improved pedestrian environments and additional supporting commemoration, interpretation and public art. These guidelines define the existing characteristics of these nodes and provide a general framework for change.

As for the unrealized nodes, their character and function has not been defined. These guidelines provide urban design principles for the future design of these nodes, in addition to demonstration plans. The demonstration plans illustrate one possible design outcome that could result from the application of the urban design principles. The demonstration plans are not intended to limit the creativity of future designs. Rather, they provide a mechanism to explore the opportunities and challenges afforded by each node and how the design principles for Confederation Boulevard can be applied. Their ultimate character and function will be determined in the future.

General Design Principles for all Primary Nodes

a. All nodes are intended to have one or more commemoration or public art opportunities.
b. Nodes should have a landmark character that creates a memorable sense of place and marks turning points or key junctions in the city.
c. Provide seating opportunities. High pedestrian traffic areas and gathering spaces should have many seating options with multiple aspects/view opportunities, locations in active and passive zones, and locations in sun and shade.
d. Provide a drinking fountain.

The completed Primary Nodes are:

1. Confederation Square
2. The Peacekeeping Monument
3. Rideau Hall

The unrealized Primary Nodes are:

4. Rideau/Sussex
5. Wellington/Portage
6. Portage/Laurier
7. Alexandra/Laurier

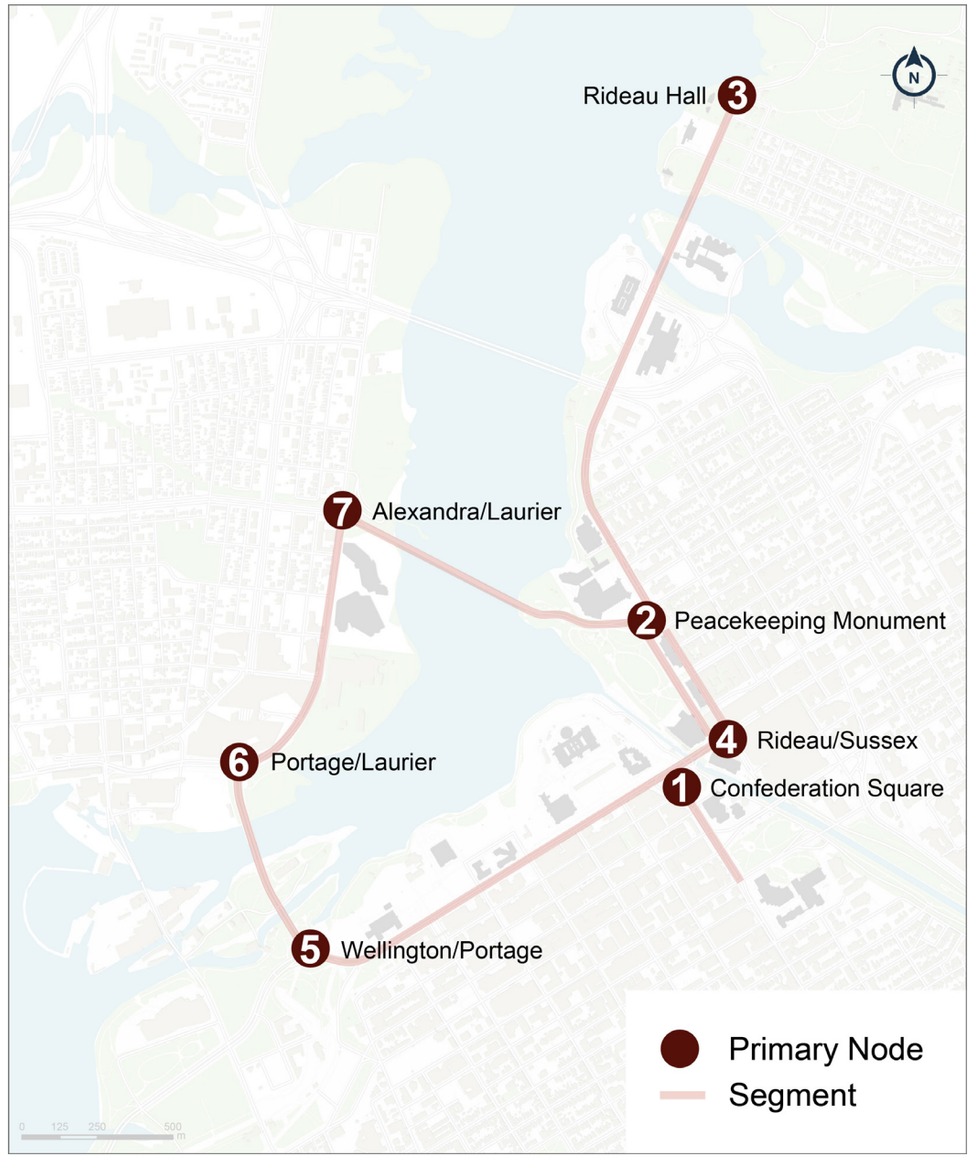


Figure 66: Key plan of Confederation's Boulevard's Primary Nodes

6.2.1 Confederation Square

Confederation Square is a nationally important space of commemoration, gathering and collective remembrance, and a national historic site. The triangular plaza design is complete and suits its use and function, both on days of ceremony and in day-to-day situations, and no changes are anticipated.

There is a potential for a significant change to the north and west edge of the square if the tram is implemented along Wellington. The west leg of Elgin Street is envisioned to be closed to general traffic and accommodate the tram's terminus. Most of the right-of-way would become a pedestrian plaza space, with similar design characteristics to Wellington Street in front of Parliament Hill. This reconfiguration may also provide an opportunity to formalize spaces for security and maintenance vehicles to ensure their orderly presence in this highly symbolic space. The existing street segment would be flush paved with unit paving across the surface, with two exceptions. The tram platform must be elevated relative to the tracks for accessible boarding and alighting. Southbound OC Transpo bus service would continue to pass through this segment alongside the tram, on a flush bus lane surfaced with coloured concrete for improved durability. An enhanced bus platform should be built to facilitate transfers between the tram and important OC Transpo bus routes. This treatment will serve key transit connectivity functions while extending the plaza space from the beautiful historic buildings to Confederation Plaza.

The pedestrian treatment on this block of Elgin Street would form a loop linking Sparks Street with Wellington Street in a continuous pedestrianized environment. Like Wellington in front of Parliament Hill, high-contrast tactile guidance and wayfinding should be provided to guide people with vision impairment along the bus lane and tramway. Signalized accessible crossings will remain important to assist users in crossing the bus lane and tram tracks. It is understood that the terminus may require tram charging equipment to enable operation without overhead wires along Wellington Street. The charging equipment must be designed to be discreet and visually form part of the Confederation Boulevard design family.

Wellington Street along the north edge of Confederation Square could also be pedestrianized since it would not be needed for public vehicular traffic. In addition, passage for emergency vehicles and parliamentary shuttles will need to be maintained. In this sense, it will function as a true extension of the square up to the edge of Parliament Hill and the Plaza Bridge.

The east edge of the square would be converted to a two-way street to maintain connectivity for general traffic. A northbound bus lane with enhanced bus platform could be considered to complement the westbound/ southbound bus lane and platform along the other edges of the square.

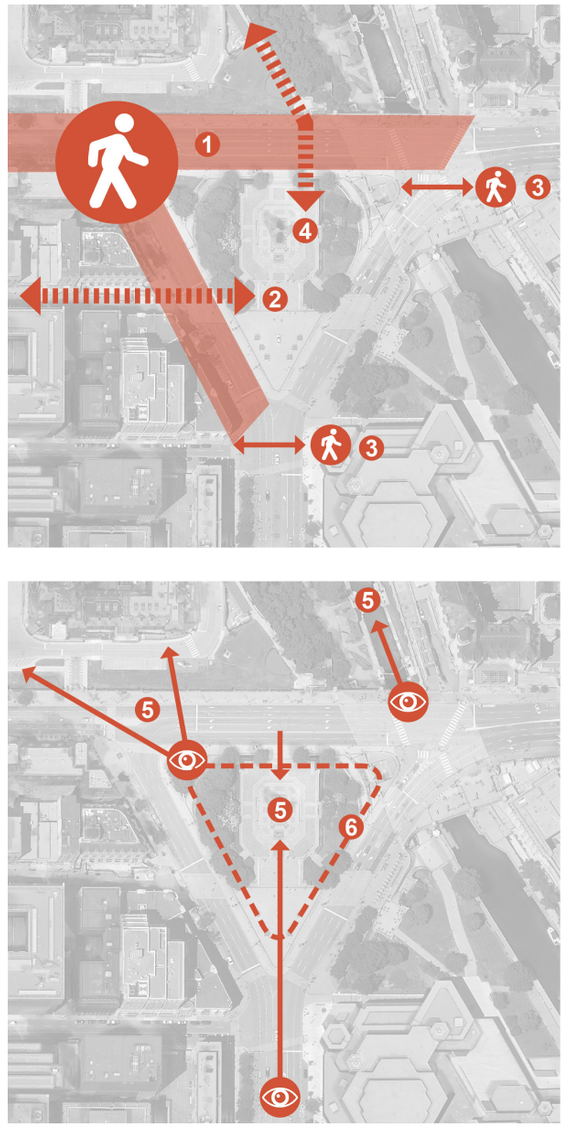


Figure 67: Design principles for Confederation Square

Design principles for Confederation Square include:

1. Pedestrianized street treatment. Unit paving continuous across the right-of-way with the exception of the bus lane
2. Improve connection from Sparks Street to Confederation Square
3. Improve pedestrian linkages across Elgin Street
4. Emphasize connection to Escarpment trail
5. Maintain views of the National War Memorial, Parliament Hill and the Rideau Canal
6. Maintain the central Confederation Square design. Eliminate all parking (including of security and maintenance vehicles) on pedestrian spaces including the War Memorial plaza

Concept Sketch 5: Elgin Street west of Confederation Square. Potential security measures are not shown.

6.2.2 Peacekeeping Monument

The plaza in which the Peacekeeping Monument sits is a fully realized design concept that gives pride of place to the monument. No significant changes are anticipated within the central plaza; however, additional seating around the monument could be considered to provide more opportunity for contemplation and viewing.

To create a more cohesive node with a greater emphasis on the pedestrian realm, the St. Patrick Street vehicular connection to the Alexandra Bridge can be removed and replaced with additional hardscape and landscape space. The new space will be contiguous with the National Gallery landscape and plaza. A design concept for these changes has been established by the Kìwekì Point master plan and is reflected in these guidelines.

New landscape opportunities can visually connect the Peacekeeping Monument with the National Gallery plaza, helping better define the plaza and make it more comfortable and usable. Connections to Beaux-Arts Court and the Sussex Heritage Courtyards can be enhanced. Lastly, new bike lanes and cross rides will provide safe cycling routes through this node.

While the demonstration plan and design principles figure do not show the potential Interprovincial Transit Loop, its implementation is not precluded. If implemented, it would be expected to follow the listed principles for this node in a more general sense.

Figure 68: Demonstration plan for the Peacekeeping Monument node

Design Principles for the Peacekeeping node:

1. Create clear cycling routes with demarcated crossings
2. Remove vehicular lanes to create a new hardscape and landscape opportunity space, with purpose and programming to be determined
3. Define new pedestrian circulation to connect the hardscape and landscape opportunity space with adjacent sidewalks, crosswalks and public spaces
4. The Peacekeeping Monument remains substantially the same. Consider additional seating around the monument, facing it, as most of the existing seating is oriented away from it
5. Consider introducing an alignment of canopy trees, landscaping and seating into the plaza space at the National Gallery to better frame the space and provide shade and amenities. In so doing, it will be critical to preserve views toward the National Gallery building. Viewsheds must be studied before confirming the location of future trees
6. Maintain open sightlines to Maman, the public art in the centre of the plaza
7. Realign the Major's Hill Park entrance to the corner of Mackenzie Avenue and Murray Street

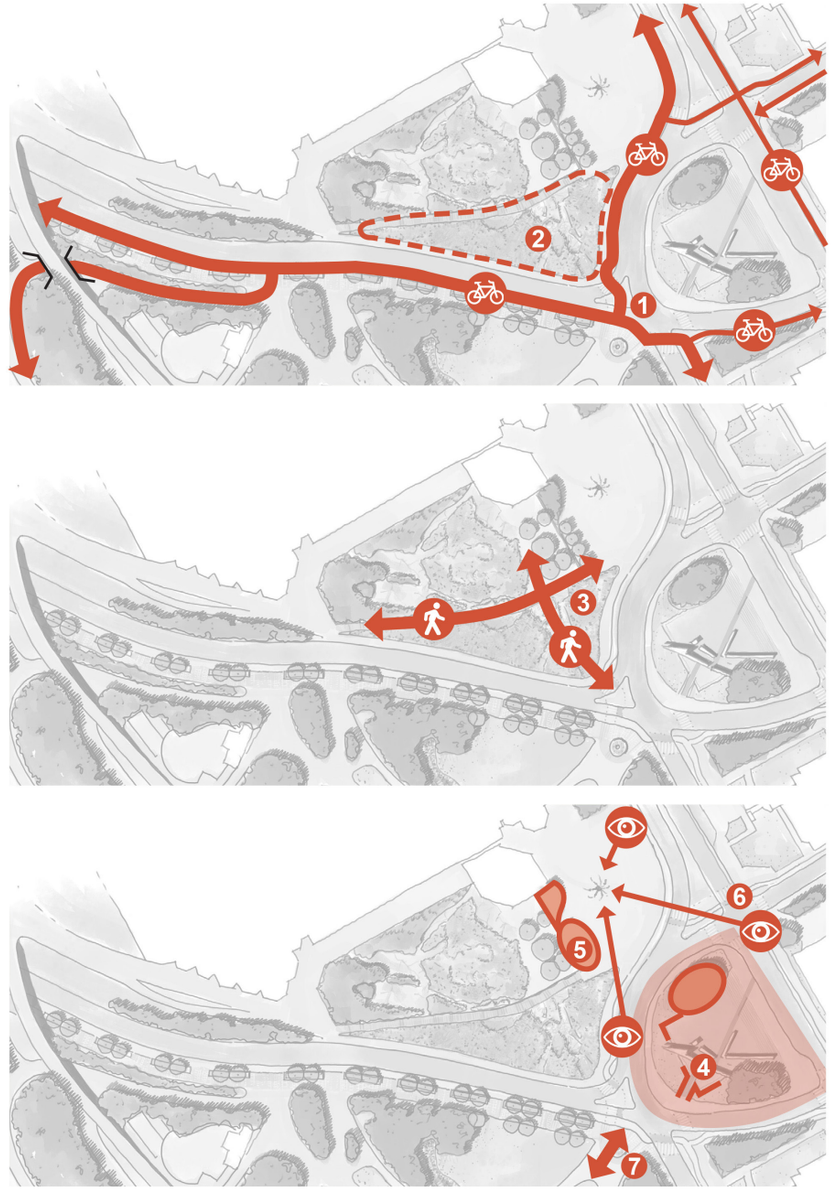
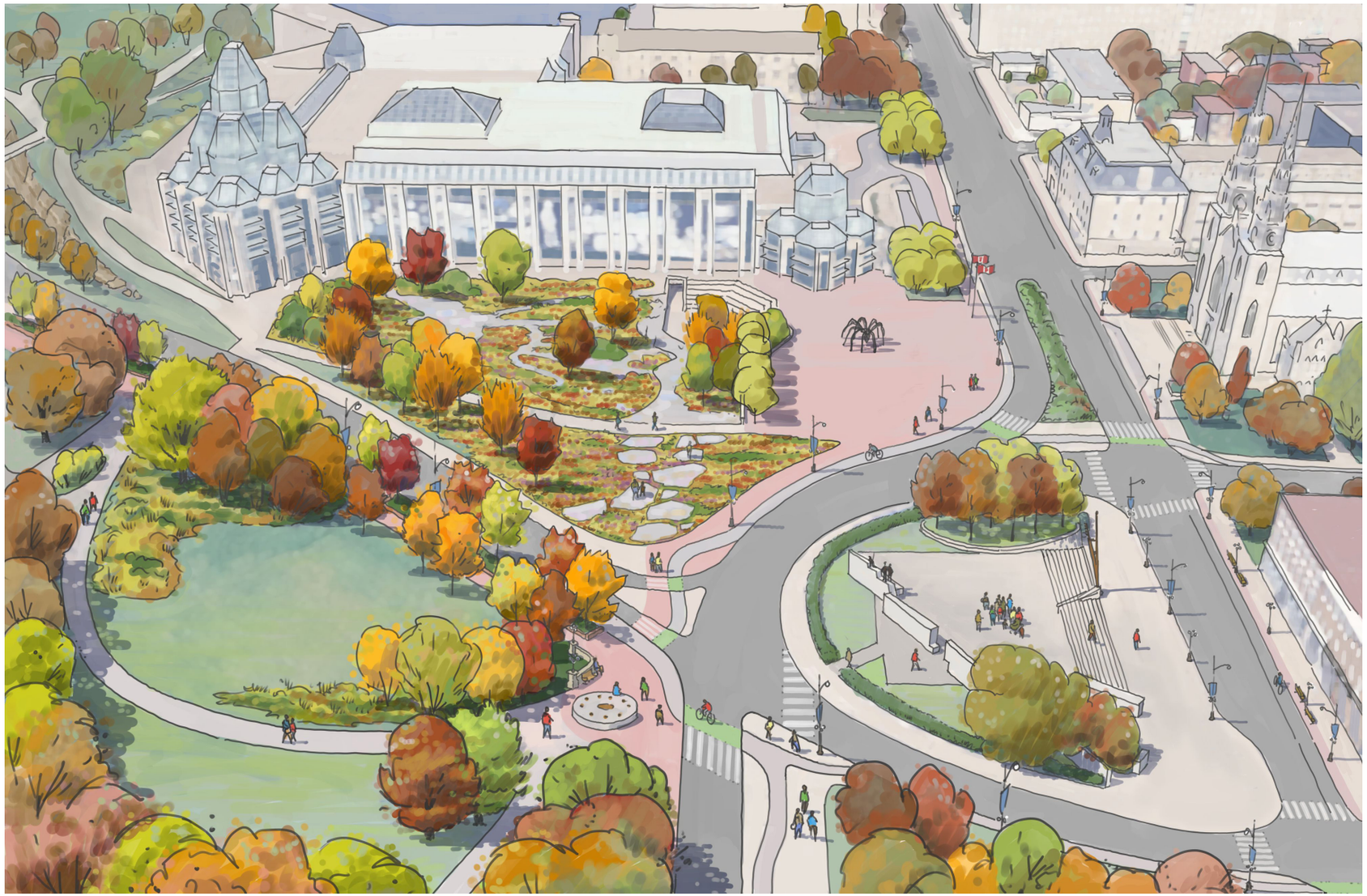


Figure 69: Design principles for the Peacekeeping node



Concept Sketch 6: Peacekeeping Monument

6.2.3 Rideau Hall

The defining features of the Rideau Hall node are complete. Much of the strength of this node is a result of the scale and form of the street. The right-of-way is narrow, and the adjacent trees, buildings, fences, sidewalks, plazas and landscaping are located close to the street. This creates an intimate and human scale, compressing the space and defining a memorable gateway experience, to both Confederation Boulevard and Sir-George-Étienne Park and Parkway. The small roundabout dimensions allow the central sculpture to take pride of place as a focal point that is in scale with the adjacent residential architecture. Care should be taken in any future works to preserve these intimate scale relationships.

The Rideau Hall arrival plaza builds on these characteristics. It is small in scale and reaches out to the node to draw visitors toward the Rideau Hall grounds. The roundabout form and the sculpture function as a pivot point when approaching from the south, turning and directing people toward Rideau Hall. The Rideau Hall Complex is a national historic site, and its character-defining elements should be preserved and enhanced.

The statue of Queen Elizabeth II, temporarily located at this node, has an ideal relationship with its context. It is in scale with the compressed frame of the space, and the form of the artwork is engaging from all directions, working well in the roundabout. If the statue is moved in the future, the creation of new work at this node should be cognizant of similar relationships. Other improvements at this node could include revealing and celebrating the presence of the Ottawa River in the space, providing stronger pedestrian connections, and improving the connection between the Rideau Hall arrival plaza and the commemoration or artwork through clear sight lines, opportunities for seating and contemplation of the commemoration, and interpretive elements.

Design principles for the Rideau Hall node:

1. View of the commemoration from the east
2. Enhance the connection to the Ottawa River
3. The intimate scale of the right-of-way and the immediacy of the adjacent walls, buildings, and landscaping define the edges of the roundabout/plaza space and the approaches to them. Gaps are minimized; even driveway entrances have decorative gates that continue the edge definition
4. Rideau Hall arrival plaza and pedestrianized street treatment with unit paving continuous across the right-of-way. Reorient the landscape to include views of the commemoration, as well as interpretation
5. Provide pedestrian crosswalks

Figure 70: Design principles for the Rideau Hall node

6.2.4 Rideau/Sussex

The Rideau/Sussex node is at a pivotal location along the Boulevard. To the east is the ByWard Market and the Rideau Centre, as well as other cultural, tourism and employment destinations. There are a lot of pedestrians along the Wellington Street–Rideau Street corridor, which cross at this intersection. As such, this node is a major gateway to Confederation Boulevard.

A clear priority for this node is to enhance the pedestrian realm by providing a significant gathering space and improving surrounding connections. This can be accomplished by removing some of the lanes devoted to vehicular traffic in favour of a new plaza space and bringing pedestrians back up to ground level. This will create a public space similar to the other nodes, of a scale suitable for major new commemorations or public art, and large enough to comfortably accommodate a variety of amenities including seating, greening, gathering and programming. It will be essential to also reserve space for a new building at this location and ensure that its ground floor opens to and animates the plaza, which is otherwise bordered by blank walls and several lanes of traffic.

Design Priorities

To pursue the guiding principles for the Rideau/Sussex node, the following priorities are identified:

a. Rejuvenate the public realm by creating an expanded at-grade public plaza south of Rideau Street and west of Colonel By Drive. It is to be framed by a new building abutting the former Union Station, with active uses at grade that will animate an extended Rideau Street building frontage as well as this new open space, and that reflects the stylistic characteristics of the heritage building.
b. Introduce a continuous at-grade sidewalk along the south side of Rideau Street.
c. Introduce a two-way bikeway along the north side of Rideau Street, connecting the Wellington Street bikeway to the bikeways along Mackenzie Avenue and Sussex Drive to complete the Confederation Boulevard Cycling Loop.
d. Improve the quality of pedestrian and cyclist crossings across Rideau Street to enhance connectivity from Colonel By Drive to Confederation Boulevard.
e. Remove the vehicular connection from Rideau Street south of Mackenzie Avenue to Colonel By Drive to reprioritize space from vehicular traffic to the other objectives noted above.
f. Consider access to public washrooms.

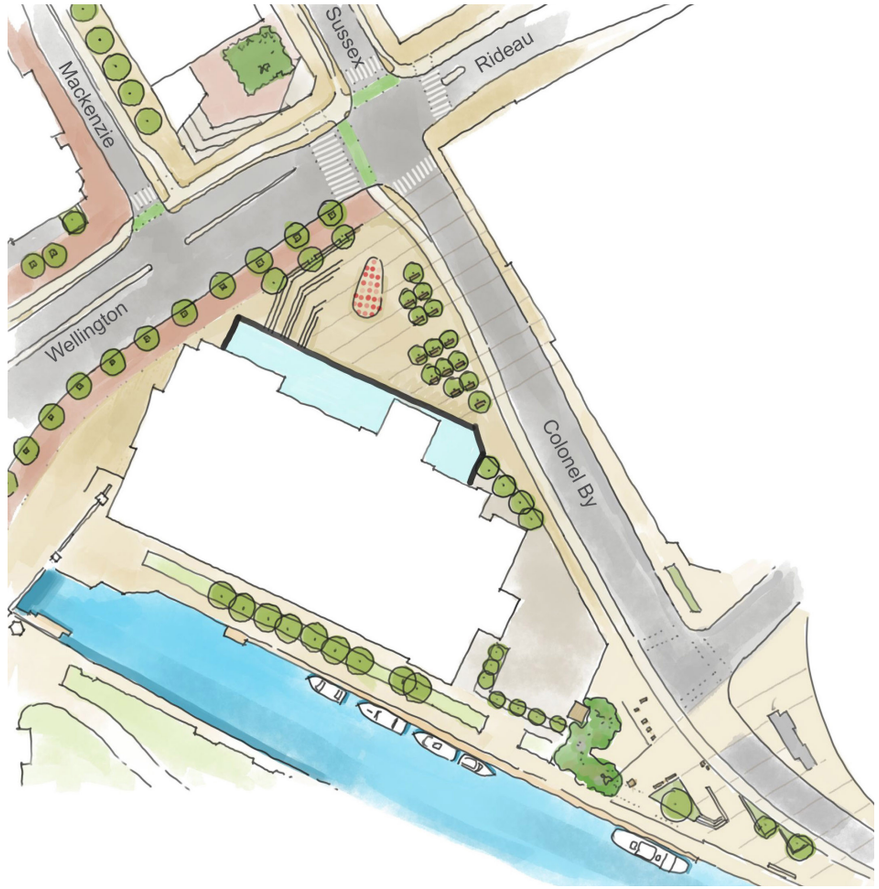


Figure 71: Demonstration plan for the Rideau/Sussex node

The demonstration plan is provided to guide future design of this node. It illustrates a possible urban design approach that could be taken while transportation facilities are being reconfigured, as recommended in a mobility study completed by the City of Ottawa to fulfill the Council recommendation in the ByWard Market Public Realm Plan for this node. The NCC was a stakeholder in that study process, and the recommended plan is consistent with the guiding principles for Confederation Boulevard.

The demonstration plan shows the re-establishment of visual and spatial connections for pedestrians at ground level, while creating a public plaza area featuring significant landscape opportunities for greening, biodiversity and shade. This will aid in the legibility and usability of the urban fabric and create a true urban plaza space framed by buildings that is suitable for a commemorative monument.

Design principles for the Rideau/Sussex node

1. Clear pedestrian routes at ground level with direct movements to the intersection
2. Change in grade should be leveraged as a site asset, such as a grand stair with amphitheatre-style seating
3. Clear cycling routes with demarcated crossings
4. Landscape opportunities for greening, biodiversity and shade. Planting, paving and seating themes could reflect the Rideau Canal parkway landscape, such as the plaza treatment at Colonel By Drive and Daly Avenue. A formal, manicured urban treatment is preferred for this space
5. The Wellington Street sidewalk is wide and reflects the Confederation Boulevard family of streetscape elements, in particular:
   - the red unit paving across the entire sidewalk area
   - street trees within the +/- 2.5m curbside tree/furniture zone to create an edge condition
6. A site grading strategy to create a level area for programming and activity, and to provide a frame for commemorative elements
7. Provide an active building edge by adding a new building in conjunction with the node redevelopment, with uses such as food and beverage or retail outlets that support the gathering space by attracting people and providing amenities for day-to-day use of the plaza

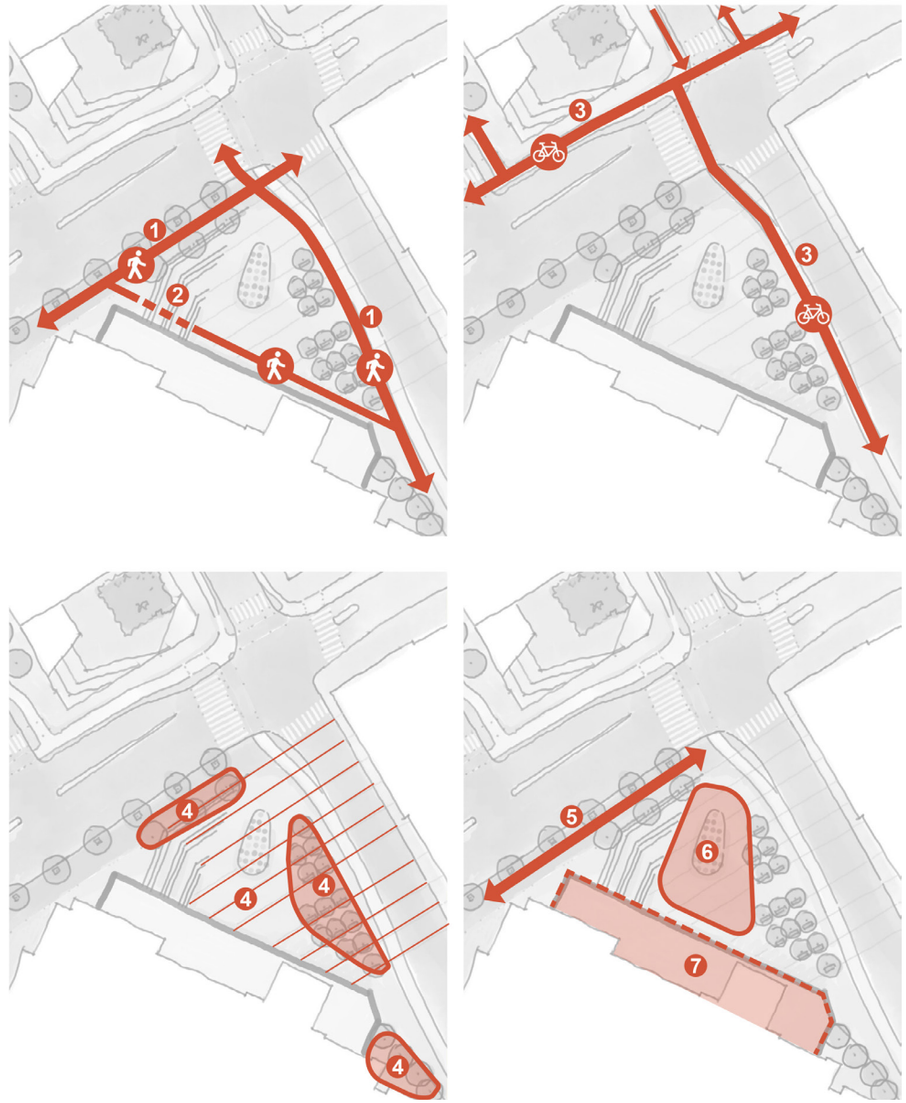
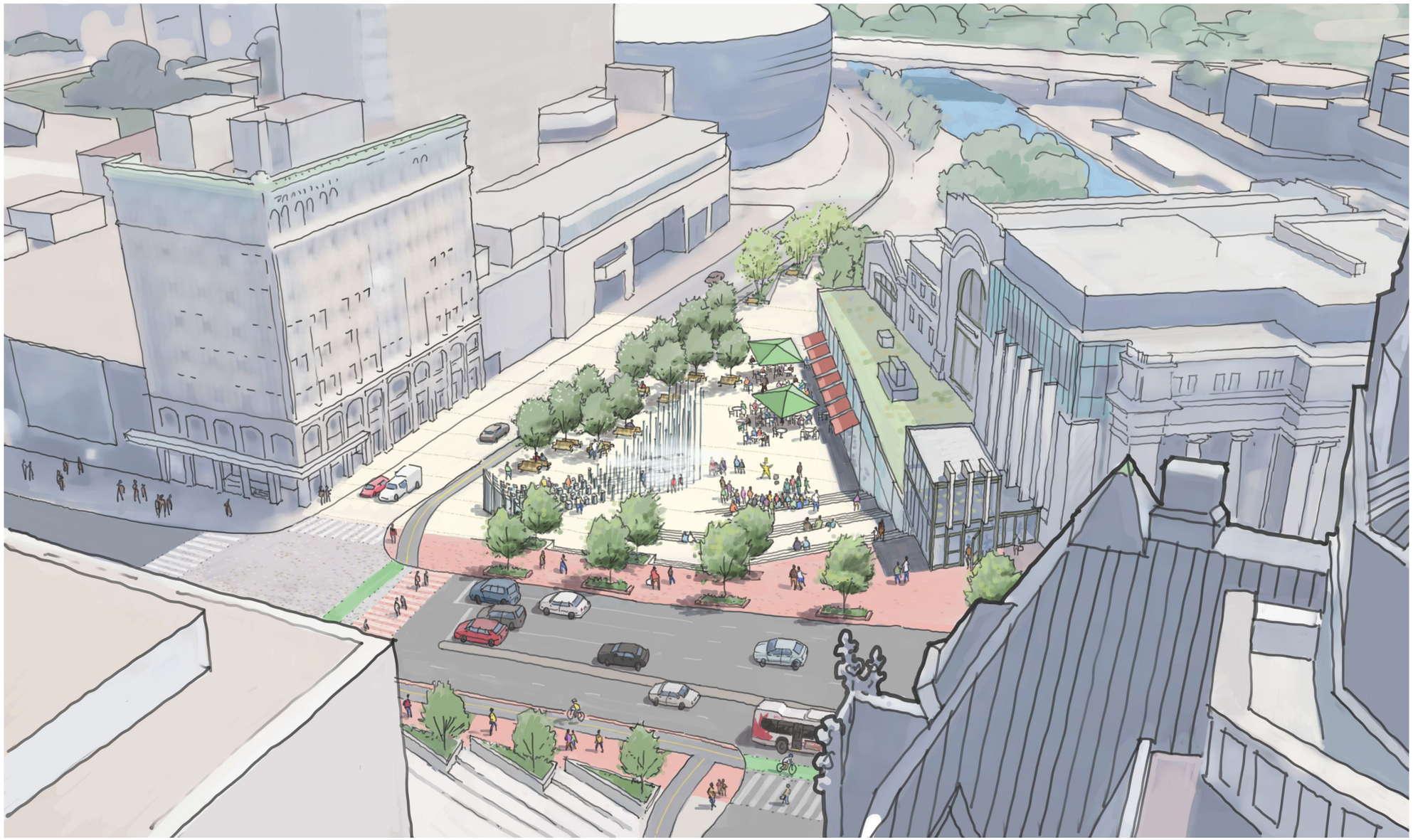


Figure 72: Design principles for the Rideau/Sussex Node



Concept Sketch 7: Rideau/Sussex node

6.2.5 Wellington/Portage

The Portage Bridge is a vital transportation route in the Capital region. There is an opportunity to rebalance this node among all modes of transportation, including accommodating the future tram. Geometric design changes can help make the intersection more comfortable for pedestrians by shortening the crosswalks and making them more direct. Cycle tracks and cross rides can be introduced. As well, space adjacent to the road can be freed up to provide additional landscaping.

The Wellington/Portage node benefits from its elevated position and context in the city of Ottawa. The approach to the intersection from the west along Wellington Street provides a vista to the rooflines of Parliament Hill, and the view to the north is of the Ottawa River. These are tremendous placemaking characteristics that should be maintained and emphasized in design. Additional tableland adjacent to the sidewalks can create gathering areas that are opportunities for commemoration and public art, as well as stronger pedestrian connections to the valley landscape.

Figure 73: Demonstration plan for the Wellington/Portage node

Design principles for the Wellington/Portage node

1. Street level (upper level) pedestrian circulation shown in solid line
2. Pedestrian connections to valley level (lower level) circulation
3. Traffic lanes reconfigured and smart channels added to create shorter and more direct pedestrian crossings
4. Potential tram alignment
5. Street level (upper level) cycling routes shown in solid line
6. Cycling connections to valley level (lower level) routes
7. Maintain the Esplanade treatment on the Inner Ring side and add street trees where feasible
8. Unit paving or decorative treatment can extend across the right-of-way to visually link the two sides of Wellington Street
9. Gathering or plaza areas at street level, with direct pedestrian connections via stairs and ramps to the valley landscape. The transition down the slope can be part of the node experience
10. Maintain open sight lines from Wellington Street across the valley lands toward the landmark buildings on Parliament Hill
11. Additional landscaping opportunities allow for the sidewalks to be moved away from the curb edge and into a green corridor, creating a more sheltered pedestrian experience in this high-traffic corridor
12. Future commemoration or public art should be placed within the gathering areas but should not obstruct the view corridor

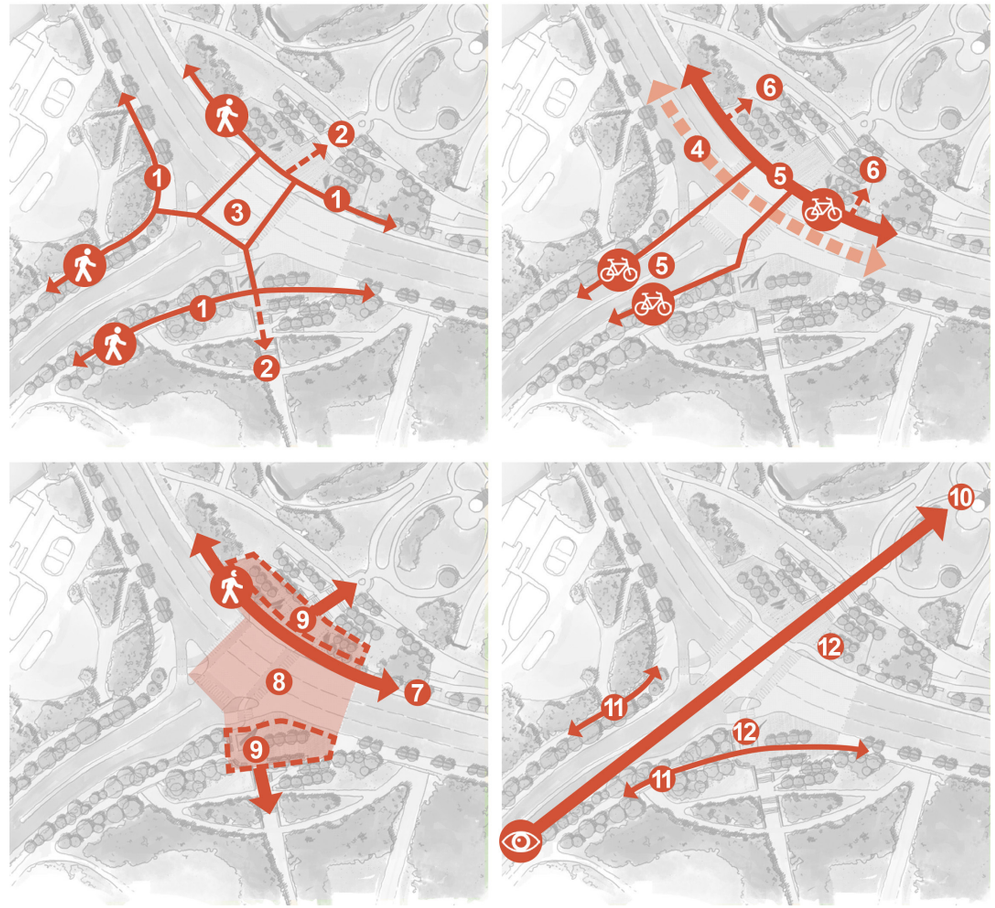
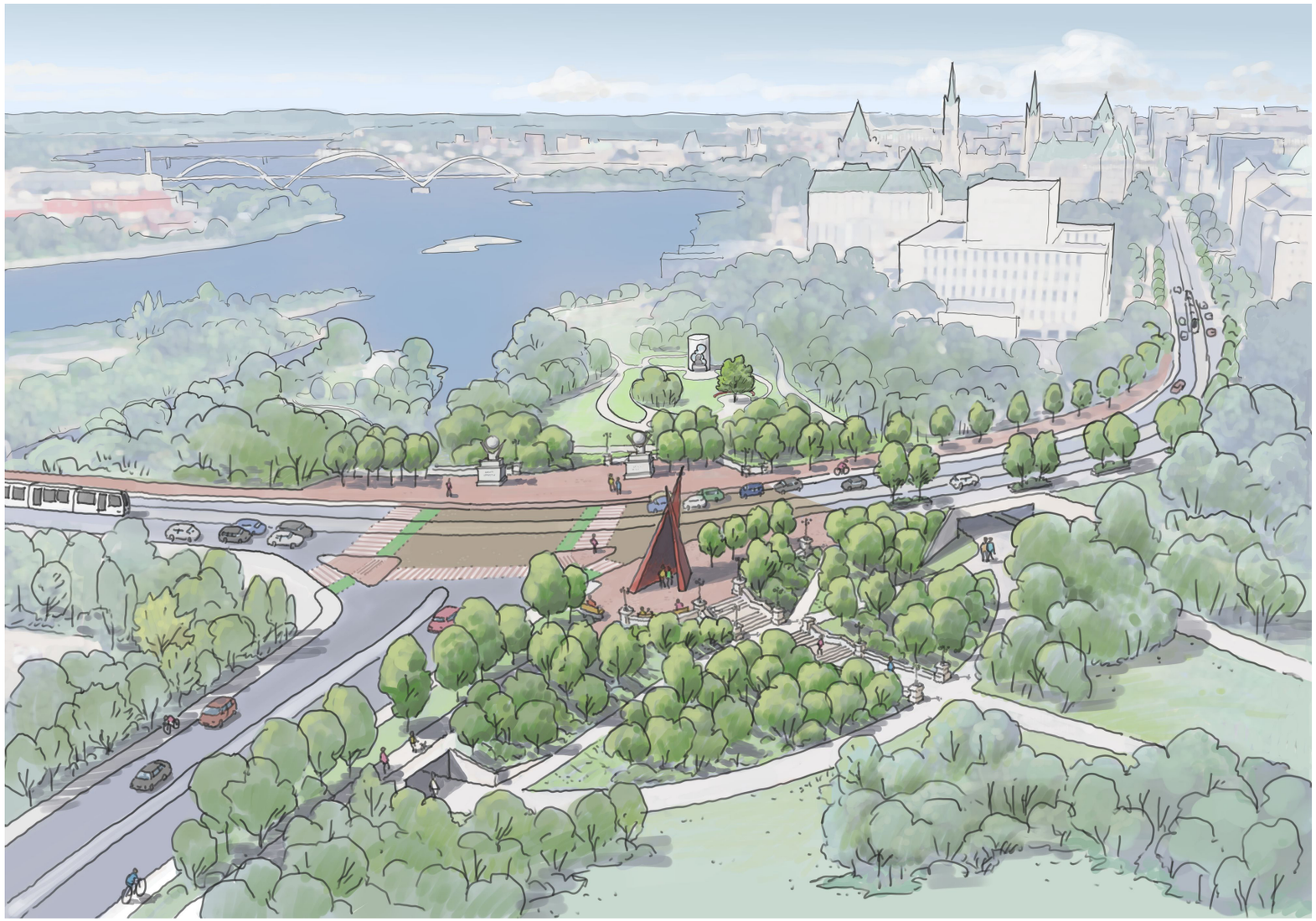


Figure 74: Design principles for the Wellington/Portage Node



Concept Sketch 8: Wellington/Portage node

6.2.6 Portage/Laurier

This node functions as a pivot point along Confederation Boulevard as well as a gateway to the Portage Bridge and to Quebec. Key opportunities include the river valley landscape, where there is space to develop trails, cycling routes, lookouts and other amenities; and potential new development along Rue Laurier, which can provide active uses at ground level, frame the node and provide public washrooms. Consider a raised intersection design.

This new urban development would frame a corner plaza. The plaza can be linked to a fully realized waterfront pathway system, with additional gathering and viewing areas. This concept assumes Rue Laurier is reconstructed with its ultimate cycling and vehicular lane configurations, and the nearby development sites have been transformed. A phased implementation should be considered for this node. For example, the waterfront connections could be developed well in advance of urban development and do not require Rue Laurier to be reconstructed.

Figure 75: Demonstration plan for the Portage/Laurier node

Design principles for the Portage/Laurier node

1. Cycling lanes introduced on both sides of Laurier as per the NCC and Ville de Gatineau cycling plans. They connect to Voyageurs Pathway along the north side of the Ottawa River
2. Pedestrian linkages between the streets and valley flow through the node at the corner of Rue Laurier and Portage, connecting to the Voyageurs Pathway, the Kruger Park and gathering/lookout opportunities along the river
3. The node at the corner provides the opportunity for a plaza for a commemoration or public art element. The adjacent building should animate the plaza with retail uses that spill out
4. A series of riverfront gathering spaces can provide respite along the Voyageurs Pathway and viewing opportunities across the river
5. Open tableland areas can provide passive recreational programming
6. Lookouts along the river can be provided at different levels. Some can be high above the water on the rock formations, and some can step down to the river

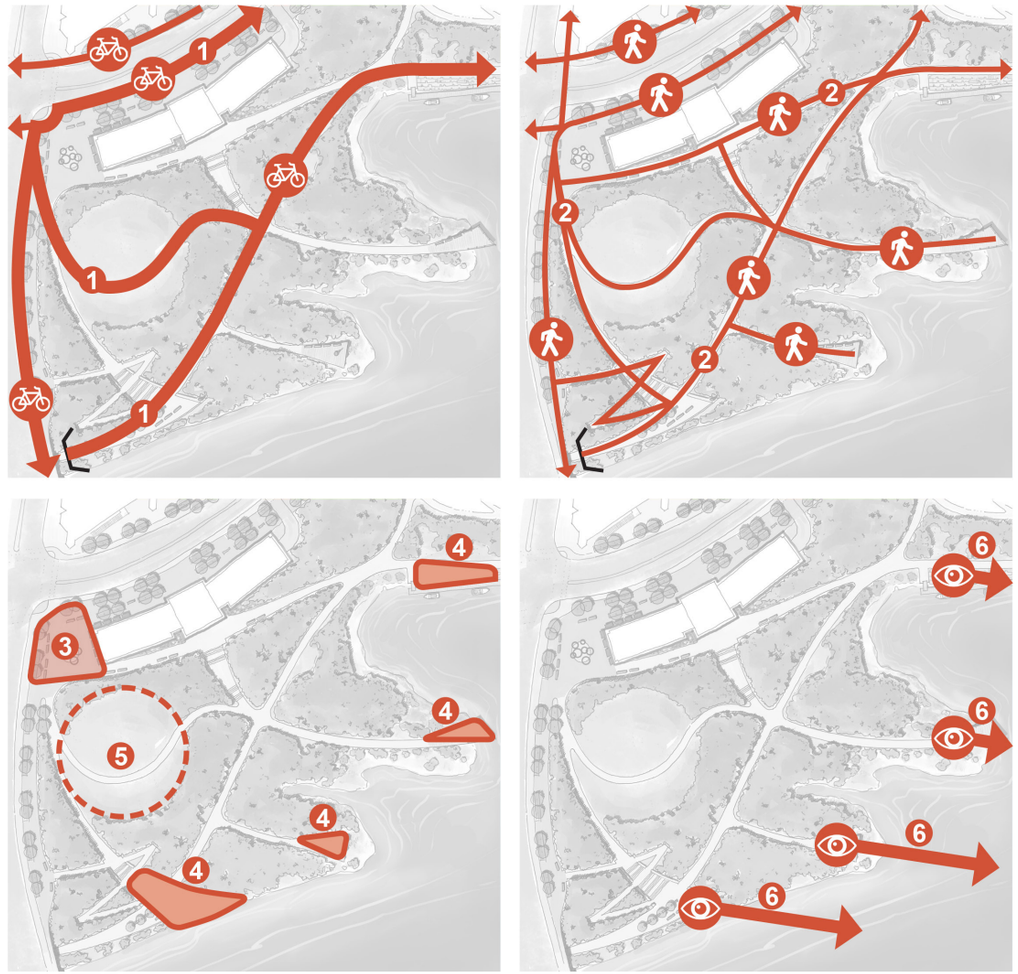


Figure 76: Design principles for the Portage/Laurier node

Concept Sketch 9: Portage/Laurier node

6.2.7 Alexandra/Laurier

This node functions as a pivot point along Confederation Boulevard as well as a gateway to the Alexandra Bridge and to Quebec. The realignment of the vehicular lanes for the Alexandra Bridge at the Rue Laurier intersection, combined with the removal of the right turn lane from Rue Laurier to the Alexandra Bridge, provides an opportunity to add pedestrian space on the southeast corner, as well as to make improvements to Jacques-Cartier Park on the northeast corner and how it connects under the bridge. The area can transform from a pass-through space to a commemoration and gathering space that stitches together Capital landscapes through enhanced north-south connectivity, new connections to the Ottawa River and a comprehensive gateway experience set in a landscaped frame. Consider bringing design references from the Canadian Museum of History and the Ottawa River into the landscape, such as the flowing building contours, Indigenous typologies, glacial forms, and use of Tyndall stone and copper accents. The intersection represents a major junction point between cycling routes, with routes heading in all four directions. As such, it should be converted to a protected intersection.

Figure 77: Demonstration plan for the Alexandra/Laurier node

Design principles for the Alexandra/Laurier node

1. Cycling lanes introduced on both sides of Rue Laurier as per the NCC and Ville de Gatineau cycling plans
2. Pedestrian circulation connects the Rue Laurier and Alexandra Bridge intersection with the node, the museum, the Voyageurs Pathway and De l'Île Pathway
3. The node can encompass both sides of the Alexandra Bridge approach road and provide programmable spaces in each
4. The node creates opportunities for different sizes and scales of gathering space for commemoration
5. Maintain clear views from the corner, through the node, toward Parliament Hill. This may require vegetation management beyond the node
6. Reference the curvilinear forms and materials of the Canadian Museum of History in the landscape, for example through low walls and seating. Mirror this treatment on both sides of Alexandra to create a gateway. The curvilinear language is already present in the gateway to Jacques-Cartier Park
7. Potential bioswales with naturalized planting

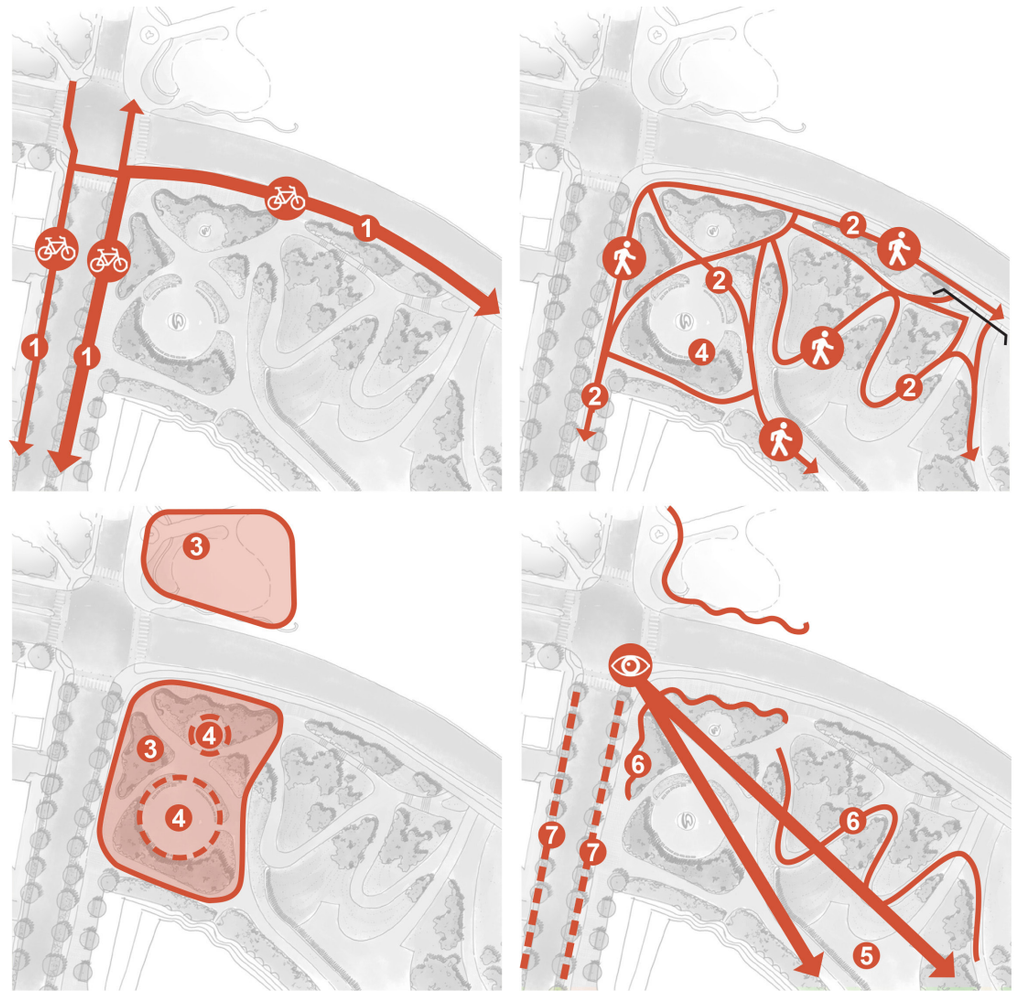
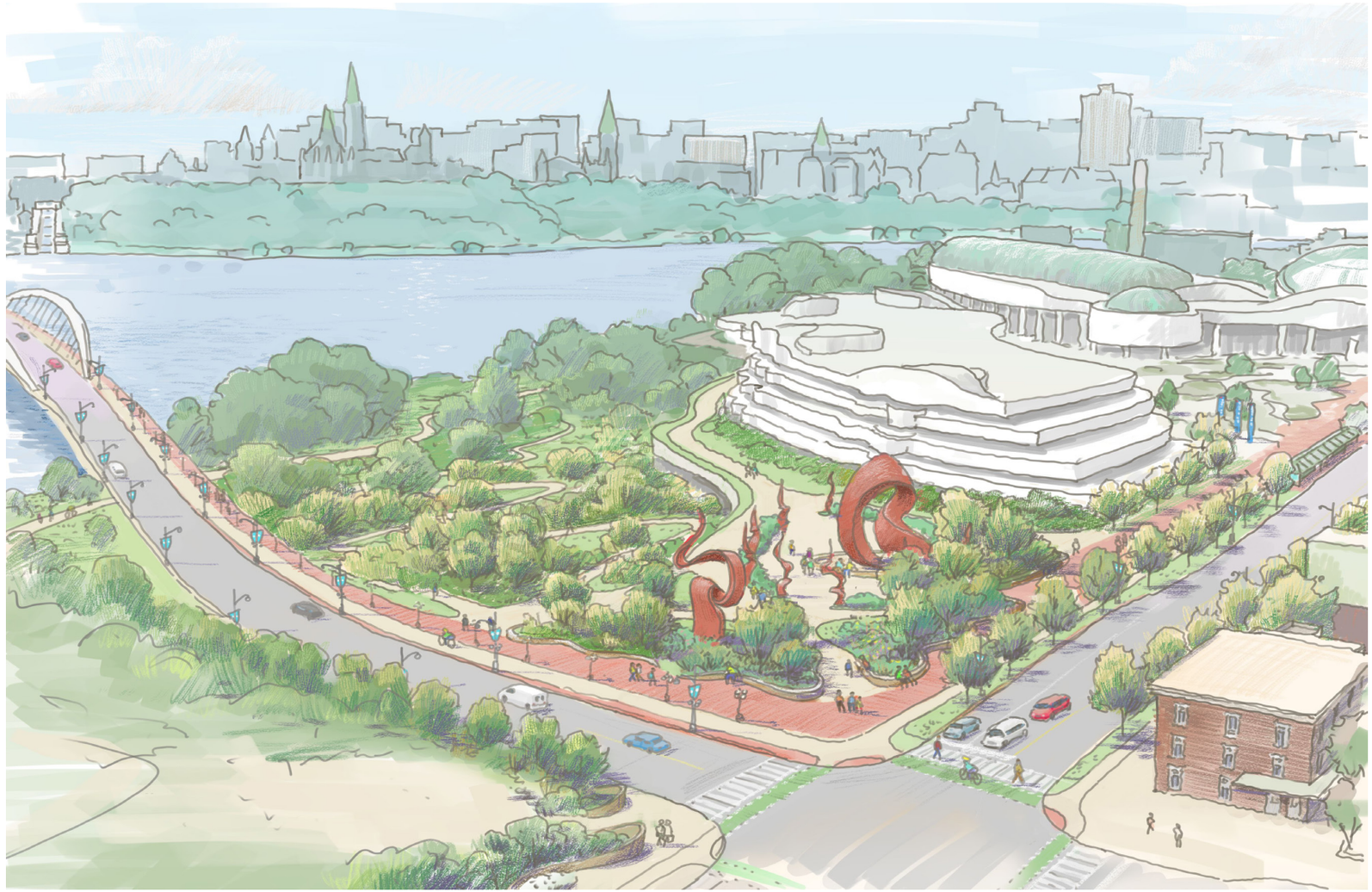


Figure 78: Design principles for the Alexandra/Laurier node



Concept Sketch 10: Alexandra/Laurier node

6.3 Secondary Nodes

In addition to the established Primary Nodes, there are a number of Secondary Nodes that exist or are planned. Compared to Primary Nodes, Secondary Nodes are smaller in scale and do not feature monumental commemorative installations, though they are appropriate locations for smaller commemorations and public art. Secondary Nodes are located where there are pedestrian connections to amenities or destinations along Confederation Boulevard.

Refer to **Figure 79** for a key plan of Secondary Nodes along Confederation Boulevard.

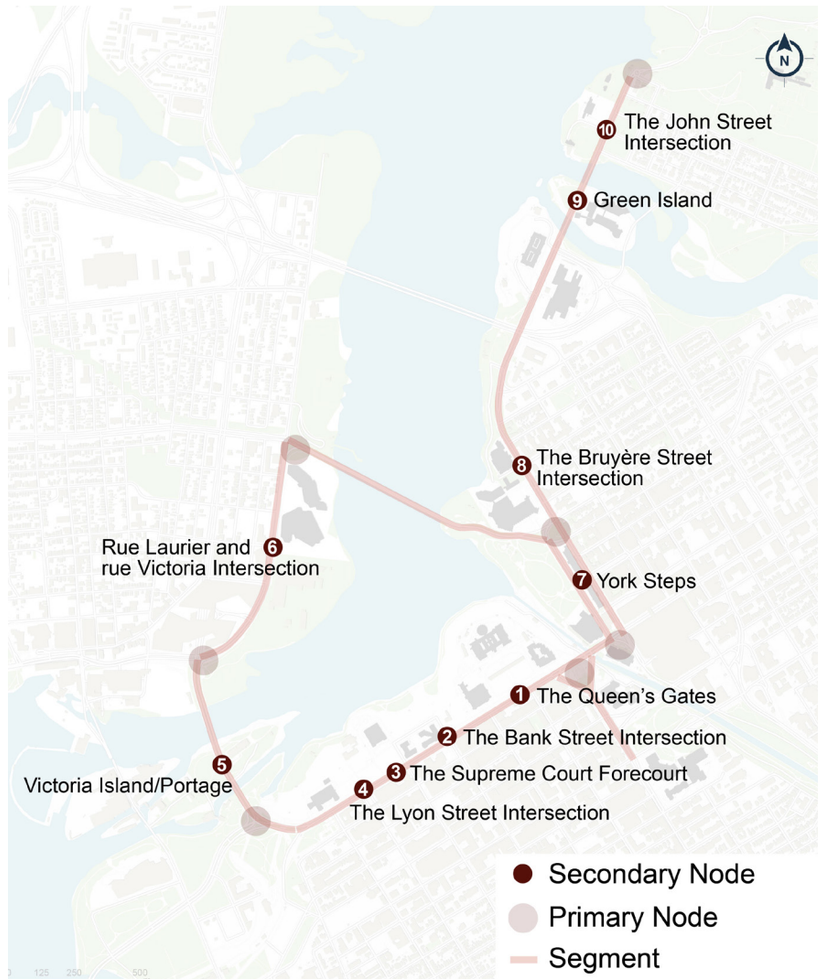


Figure 79: Key plan of Confederation Boulevard's Secondary Nodes

1. The Queen's Gates
2. The Bank Street intersection
3. The Supreme Court forecourt
4. The Lyon Street intersection
5. Victoria Island/Portage
6. Rue Laurier and Rue Victoria intersection
7. York Steps
8. The Bruyère Street intersection
9. Green Island
10. The John Street intersection

Wellington Street Secondary Nodes

For many, Wellington Street is the primary public route for viewing, accessing and experiencing Canada's most important institutions and the iconic landscapes in which they are set. Therefore, along Confederation Boulevard, Wellington Street merits special consideration for the treatment of nodes. Anchored at each end by Primary Nodes, four new Secondary Nodes are added within this segment. Together, the nodes will:

- Provide access to the centrepiece of the Capital, encompassing the Judicial and Parliamentary Precincts.
- Promote connectivity and movement in a north-south direction across Confederation Boulevard, as well as along it.
- Provide a range of public gathering spaces at different scales, accommodating events, viewing, seating, contemplation and other functions.

Each node has a unique role and function along Wellington Street, and each will have a unique design response framed within the overall character of Wellington Street. Further details on the intended role of each Secondary Node in relation to the Core Area Plan vision for Central Ottawa are provided for each new Secondary Node.

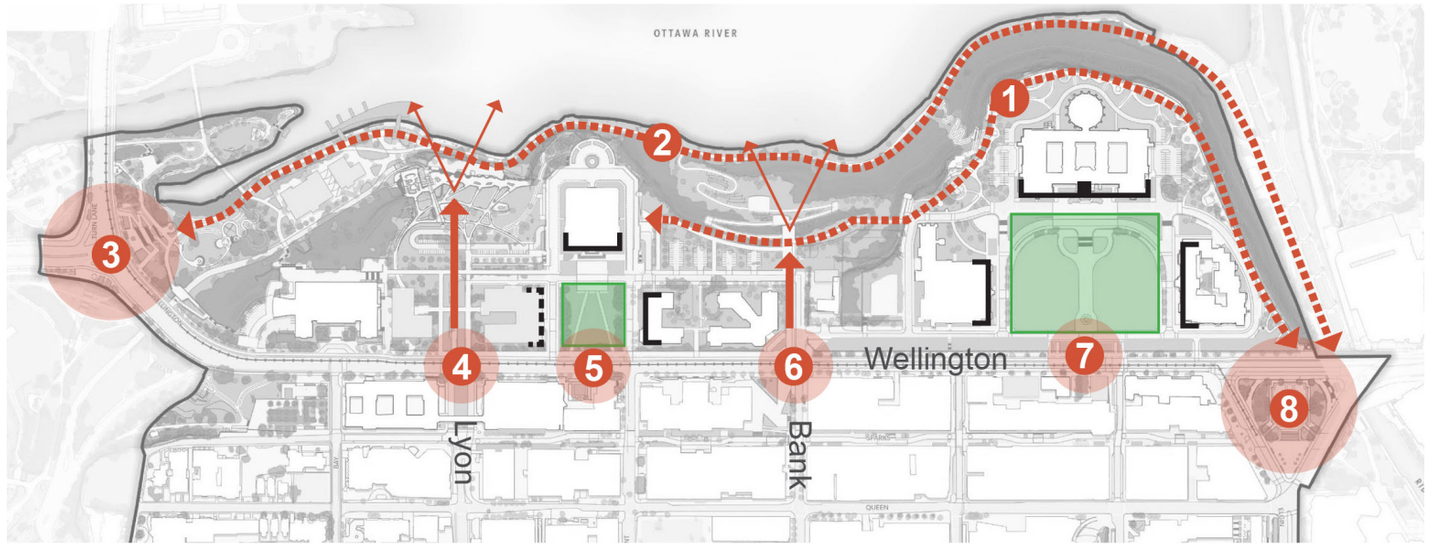


Figure 80: Nodes along Wellington Street

1. Escarpment trail (existing and planned)
2. Riverfront trail (Ottawa River and Rideau Canal Western pathways)
3. Wellington/Portage Primary Node: westernmost connection to the riverfront trail
4. Lyon Street Secondary Node: connection to the planned Cliff Plant vantage point and visitor centre
5. Supreme Court forecourt Secondary Node: celebration of the Judicial Triad and connections to the Judicial Promontory
6. Bank Street Secondary Node: connection to the planned Bank Street valley vantage point and escarpment trail extension
7. Queen's Gates Secondary Node: celebration of the Parliamentary Triad and significant viewing and gathering point
8. Confederation Square Primary Node: easternmost connection to the escarpment trail

6.3.1 The Queen's Gates

The redevelopment of Block 2 envisions the creation of a unit-paved crosswalk linking Block 2 with Parliament Hill, and a three-sided public courtyard space within Block 2. These elements are aligned on axis with the Peace Tower, the Centennial Flame and the Queen's Gates, occupying an important, formal and symbolic location.

People gather along this axis. Visitors take photos, and demonstrators gather on Wellington Street. The dignity of the view should be preserved. Trees and lighting along Wellington Street are appropriate, but this axis should be kept clear of street furniture that would interfere with this function, such as signs, benches, bike racks, waste receptacles and the like. Security requirements for the Parliamentary Precinct must be incorporated.

The planned streetscape condition for Wellington Street is to provide a plaza-like unit paved surface across the entire right-of-way. This would include the unit-paved crosswalk linking Block 2 with Parliament Hill, and would be continuous with the projected open space within Block 2, thus effectively incorporating these ideas.

Design Elements for the Queen's Gates

1. The central axis
2. Wellington Street plaza treatment
3. Projected open space within Block 2

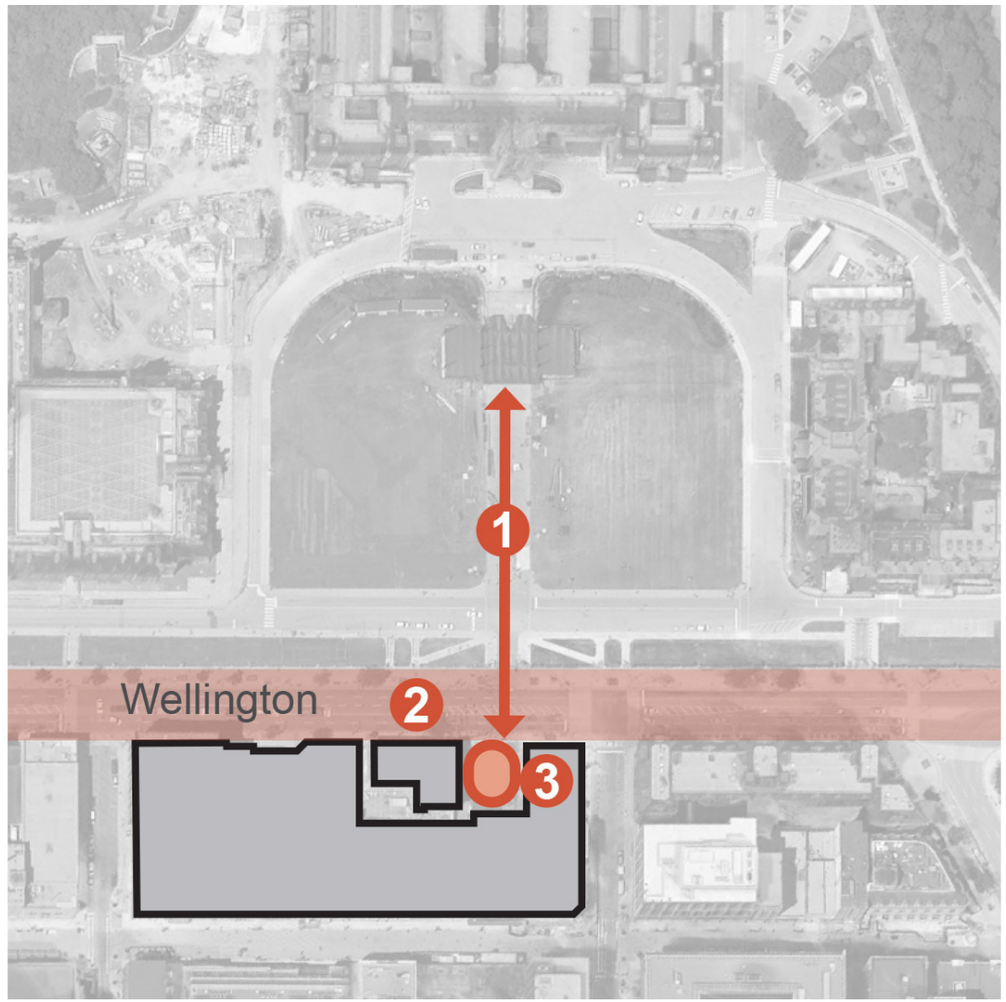


Figure 81: Design elements for the Queen's Gates

6.3.2 Bank Street Intersection

According to municipal data, the intersection of Bank Street and Wellington Street experiences some of the highest pedestrian volumes in Ottawa and serves as the main vehicular entry point to Parliament Hill. This means the intersection is an opportunity to provide both a gateway for vehicular access to Parliament Hill and an enhanced pedestrian experience that creates a memorable landmark in the cityscape. The location is also a key place to make a pedestrian connection leading to the Ottawa River valley.

On the northeast corner of Wellington Street and Bank Street is one of the beautiful gates that punctuate the Wellington wall along Parliament Hill, with a small plaza space in front of them, defining a corner of the public grounds. This corner also has a vehicle screening facility. On the northwest corner is the Confederation Building, a classified federal heritage building, with a larger plaza in front of its entrance. This node could provide a unified plaza design that straddles both sides of the street to link the gates with the Confederation Building. On the west side, the plaza design could create a rich carpet of unit paving that accommodates the vehicular drop-off (if still necessary), while also providing more significant greening and a dignified forecourt to the Confederation Building. Seating and amenities could promote use of the space. Each side of Bank Street would be different, but they would create a gateway to Parliament Hill using principles of balanced asymmetry and would frame the view toward the Ottawa River.

This intersection is also an important vehicular entrance to Parliament Hill and has requirements for checkpoints and other security measures. Pedestrian amenities and connections, and vehicular access and security can both be accommodated through clear separation of use and careful design.

Design Elements for the Bank Street Intersection

1. Historic gates
2. Wellington Street plaza treatment
3. Unified plaza treatment across both sides of the intersection and continuous with Wellington Street plaza treatment
4. Forecourt plaza to the Confederation Building with seating and amenities
5. Framed view toward the Ottawa River
6. Wide, direct pedestrian connection to the Ottawa River
7. Secure area with defined checkpoints clearly separated from publicly accessible areas

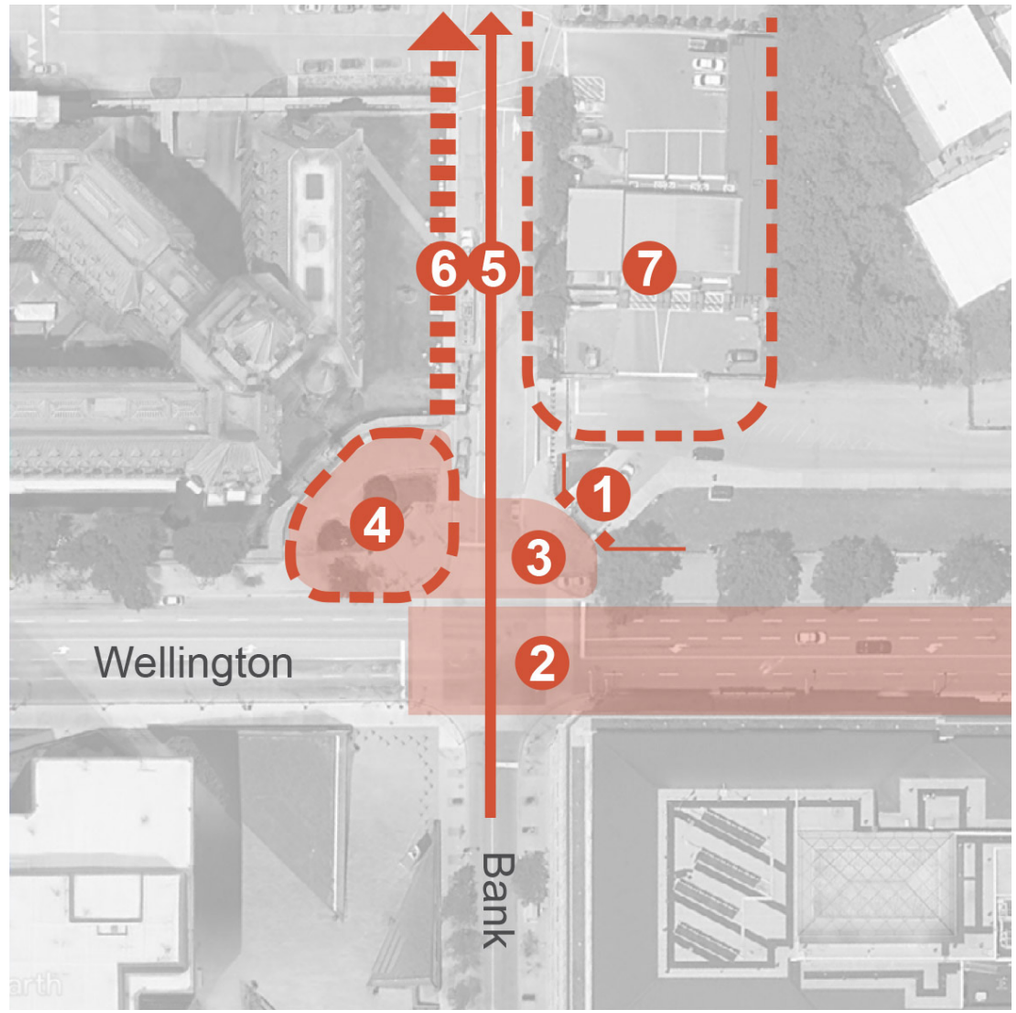


Figure 82: Design Elements for the Bank Street Intersection

6.3.3 Supreme Court Forecourt

The green forecourt in front of the Supreme Court serves as a quadrangle-type space that anchors the (future) Judicial Triad, organizing and framing the buildings in a landscaped setting. Similar to Parliament Hill, the Judicial Triad is an important national symbol that can be celebrated as a distinct moment along the Confederation Boulevard streetscape. Ongoing planning and design within the Judicial Precinct will inform the parameters for the design of this Secondary Node. Opportunities for placemaking include the following:

- Provide unit paving across the entire right-of-way, including the south sidewalk, carriageway and north sidewalk, to define a special place experienced by all travellers, and extending the perceived spatial experience of the forecourt.
- Establish direct and generous pedestrian links from Confederation Boulevard into the Judicial Triad forecourt. The links can serve both the forecourt and the buildings.
- Maintain the existing trees that provide a strong frame around the edge of the forecourt.
- Consider a possible new decorative stone and iron fence along Wellington Street, in an Art Deco style to match the Supreme Court building, which would be comparable to the fence in front of the Parliament buildings.

Design Elements for the Supreme Court Forecourt

1. Unit paving defines a special zone across the right-of-way
2. Pedestrian links
3. Maintain existing trees
4. Location of future third Triad building

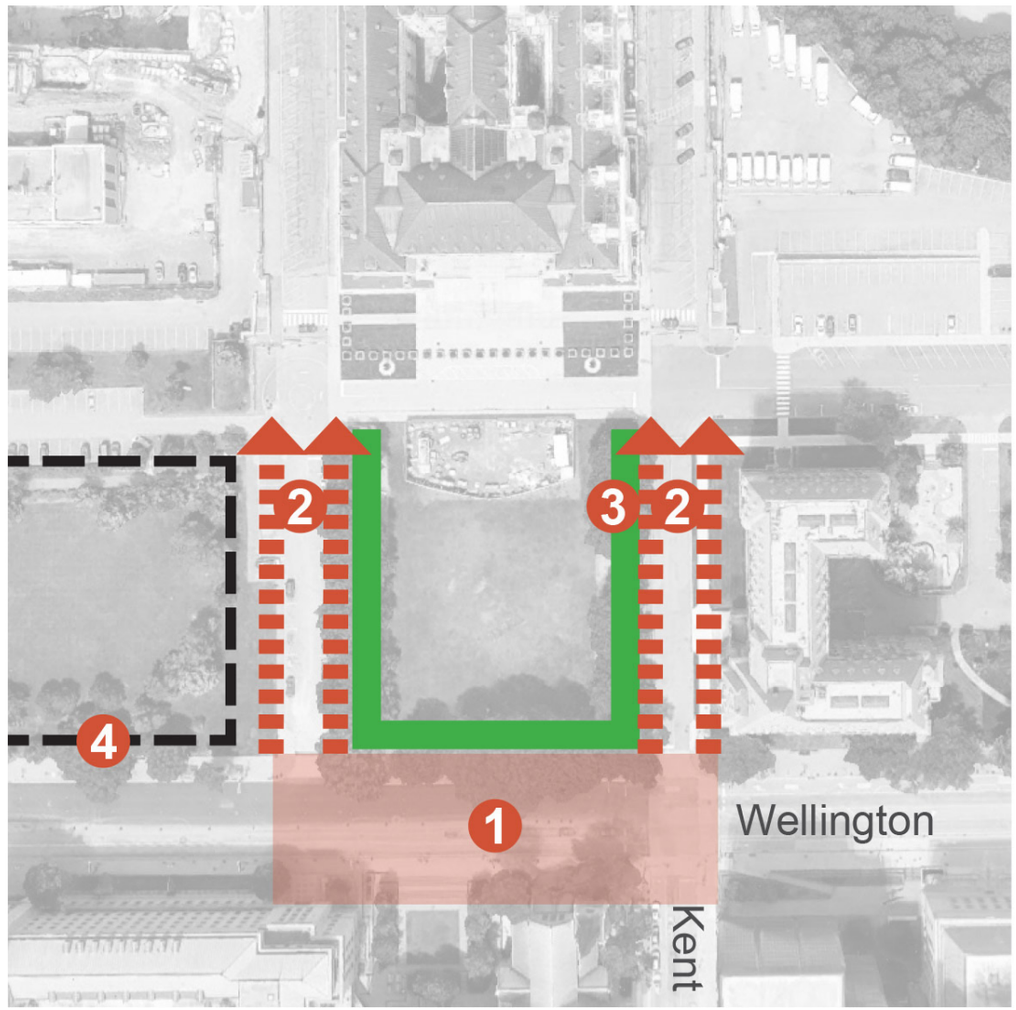


Figure 83: Design elements for the Supreme Court Forecourt

6.3.4 Lyon Street Intersection

The Memorial Arch, the strong frame created by the East and West Memorial Buildings, and the green in the centre of Lyon Street south of Wellington Street create a memorable landmark in the urban fabric. It is also a key location for a new pedestrian connection leading to the Ottawa River. Reinforcing the landmark character of the intersection, enhancing the pedestrian crossing, adding pedestrian amenities and reducing or eliminating the impact of vehicular circulation and parking will elevate this location as a Secondary Node.

Design Elements for the Lyon Street Intersection

1. Enhanced intersection and crossing design emphasizing pedestrian priority, including connections to potential tram platforms
2. Visually enhance the green space in the centre of Lyon Street, for example, with ornamental planting, small-scale public art and interpretive elements
3. Wide, direct pedestrian connection to the Ottawa River
4. New pedestrian forecourt, with pedestrian amenities, framing the gateway to the Ottawa River (to be confirmed in relation to possible future buildings on either side of this north-south axis; the buildings may be shaped to create and enclose this forecourt)

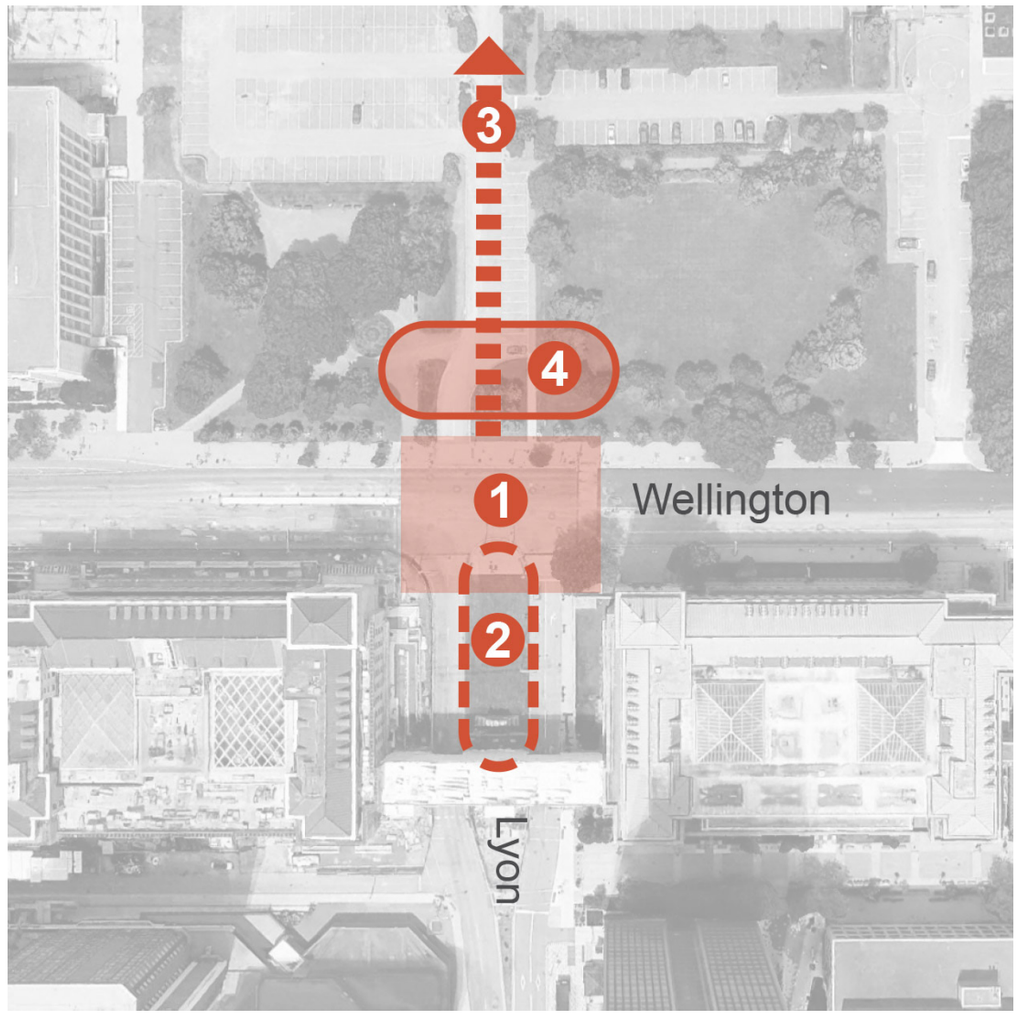


Figure 84: Design elements for the Lyon Street intersection

6.3.5 Victoria Island/Portage

Recognizing the importance of Victoria Island to Indigenous peoples, the NCC intends to create, in collaboration with the Algonquin Anishinabe Nation, a place of special significance and cultural traditions on the island.

Depending on the direction provided as part of the future visioning exercise, it may be desirable to establish an at-grade street connection to Victoria Island from the Portage Bridge to normalize access for pedestrians, cyclists and vehicles. It would create better connectivity, elevating the Island's presence in the urban fabric. It would increase activity and foster Crime Prevention Through Environmental Design principles for the Bridge and Island. Potential design goals for this node include the following:

a. Realign Middle Street along its historic alignment toward the centre of the Island.
b. Create a signalized intersection at Middle Street and the Portage Bridge with crosswalks.
c. Provide sidewalks along both sides of Middle Street on both sides of the Portage Bridge that provide pedestrian access to the Island.
d. Create a gateway at or near the new intersection. This includes the potential for commemoration or public art.

Design Elements for Victoria Island/Portage

1. Realign Middle Street
2. Provide crossing facilities at the intersection

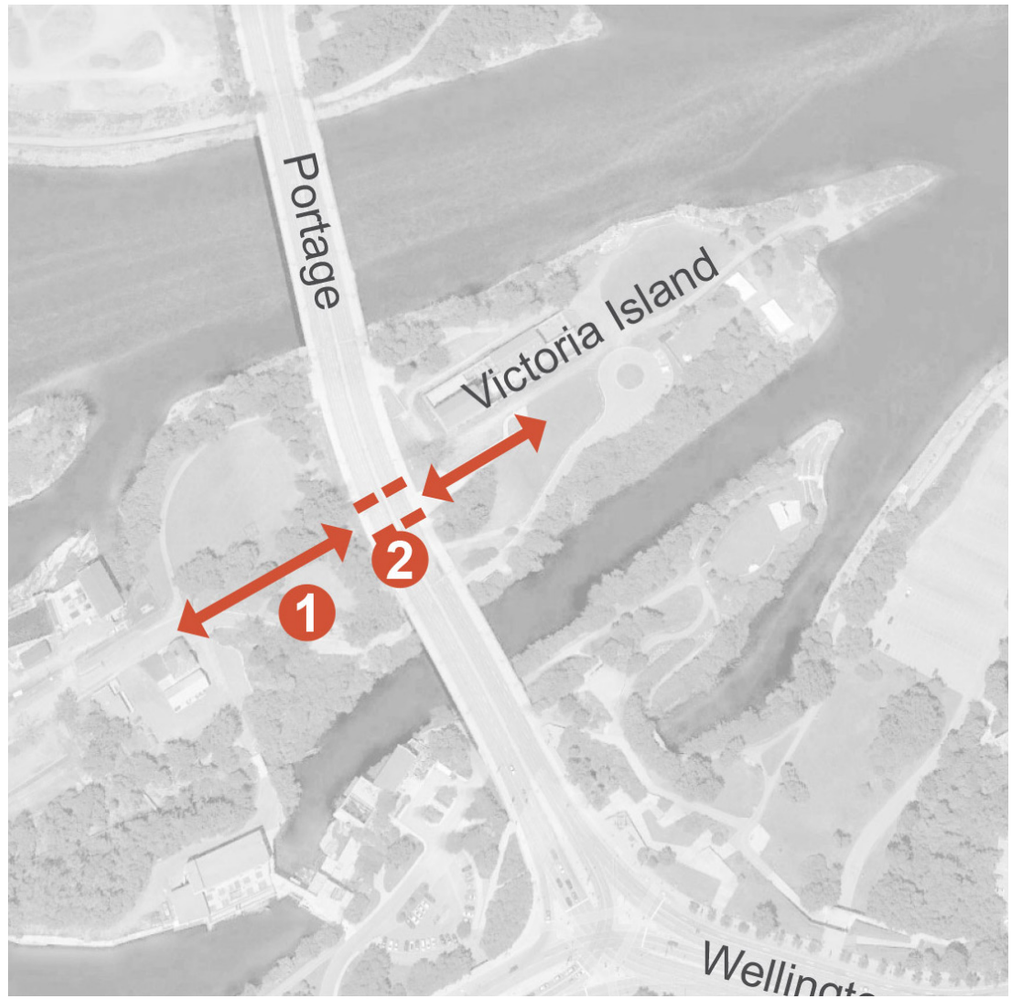


Figure 85: Design elements for Victoria Island/Portage

6.3.6 Rue Laurier and Rue Victoria Intersection

This intersection is approximately halfway between the Portage and Alexandra Bridges, is the location of a pedestrian trail connection down to the Ottawa River valley and has a forecourt plaza to Gatineau's city hall, the Maison du Citoyen. It is an appropriate location for an enhanced design that creates a special place along Rue Laurier with a focus on pedestrian priority. Consider a commemorative or public artwork at the view terminus along Rue Victoria, and a unified unit paving design that embraces all corners of the intersection.

Design Elements for the Laurier and Rue Victoria Intersection

1. Pedestrian connection to the Ottawa River
2. Potential public art at view terminus
3. Unified plaza design

Figure 86: Design elements for the Rue Laurier and Rue Victoria intersection

Concept Sketch 11: Rue Laurier and Rue Victoria intersection

6.3.7 York Steps

The York Steps have several important placemaking functions: the stairway is a landmark in the urban fabric; it provides memorable views to Parliament Hill in one direction and the ByWard Market in the other; and it is one of a limited number of connections between Town and Crown on the east side of the Linking Ring, given the city's topography and natural features. There is also a successful temporary art program.

With the planned public realm improvements to York Street in the ByWard Market, as well as the existing plaza nodes at Mackenzie Street—both on the east side in Major's Hill Park and on the west side of Mackenzie Street—this node already has an appropriate urban design that responds to the view and circulation axis. It creates small gateways in scale with the node and provides pedestrian amenity in the form of seating, planting, lighting and an interpretive sign. Going forward, these design elements should be maintained. Any additions, such as commemorations or public art, should be compatible with the existing design. Consider integrated public art.

Design Elements for the York Steps

1. Views of Parliament Hill and the ByWard Market
2. Gateway plazas with pedestrian amenities
3. York Street public realm improvements

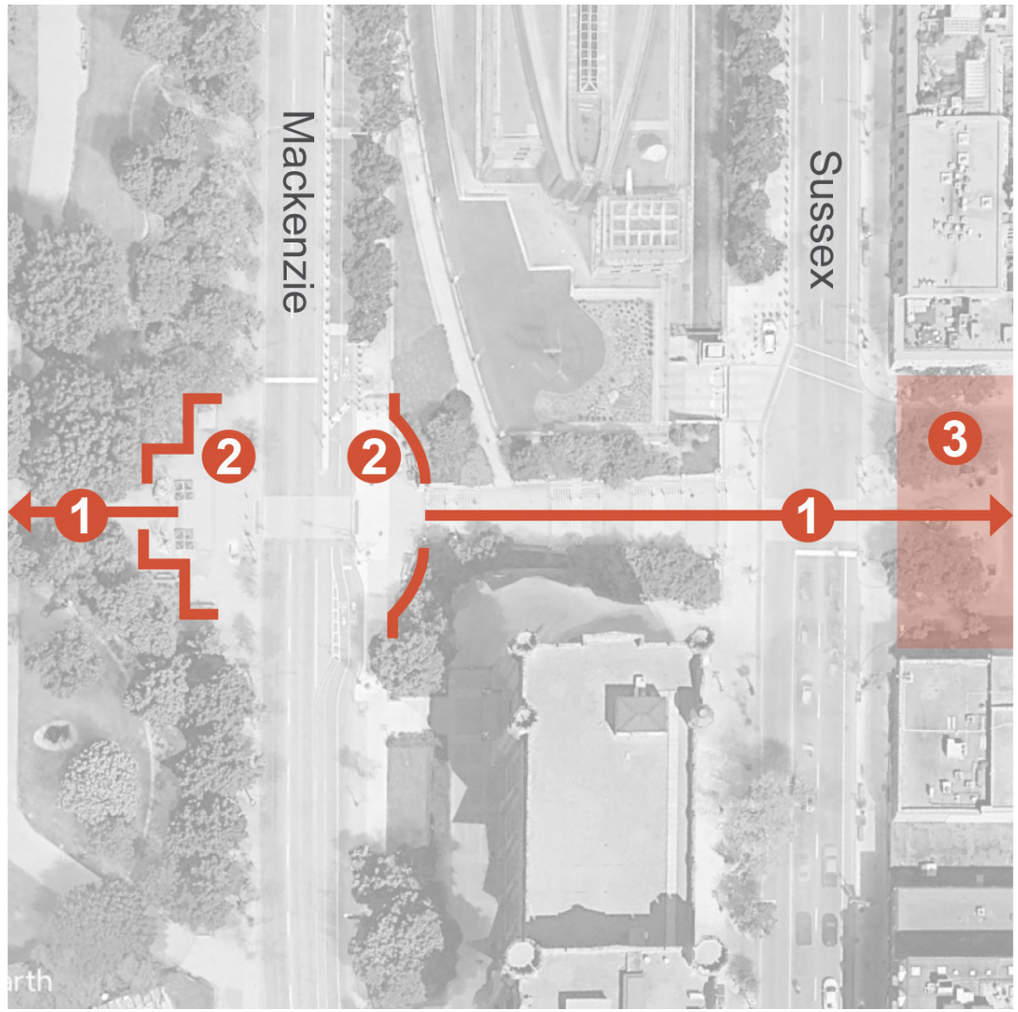


Figure 87: Design elements for the York Steps

Concept Sketch 12: York Steps

6.3.8 Bruyère Street Intersection

Bruyère Street at Sussex Drive is where the urban fabric has a dynamic mix and transition of uses. It is where the large bend in Sussex Drive transitions from an arterial-like, unframed character (which the Core Area Plan directs to be urbanized in the future) to a more compact urban environment framed by buildings. Diverse institutional buildings mix with mid- and low-rise residential buildings of the neighbourhood. It is a good opportunity to connect the Ottawa River landscape with the institutional and neighbourhood context. The Royal Canadian Mint and the forecourt plaza to the Global Centre for Pluralism frame a strong experience for this connection.

An additional pedestrian crossing may be considered at the intersection of Sussex Drive and Bolton Street, but this would not have the status of a Secondary Node.

Design Elements for the Bruyère Street Intersection

1. Enhanced intersection and crossing design emphasizing pedestrian priority
2. Incorporate and adapt the existing trees and landscape features in front of the Global Centre for Pluralism as part of the node design
3. Landscape or public art element as a focal point at the end of the Bruyère Street view corridor
4. Wide, direct pedestrian connection to the Ottawa River, with enhanced paving, landscaping, lighting and amenities such as seating, shade, wayfinding and interpretive elements
5. Reduce the impact of vehicular circulation and parking through a shared-space design emphasizing pedestrian priority
6. Provide views and connectivity from Confederation Boulevard to the planned landscape improvements at Lady Grey Drive. Emphasize the presence of the Ottawa River landscape to draw people toward it

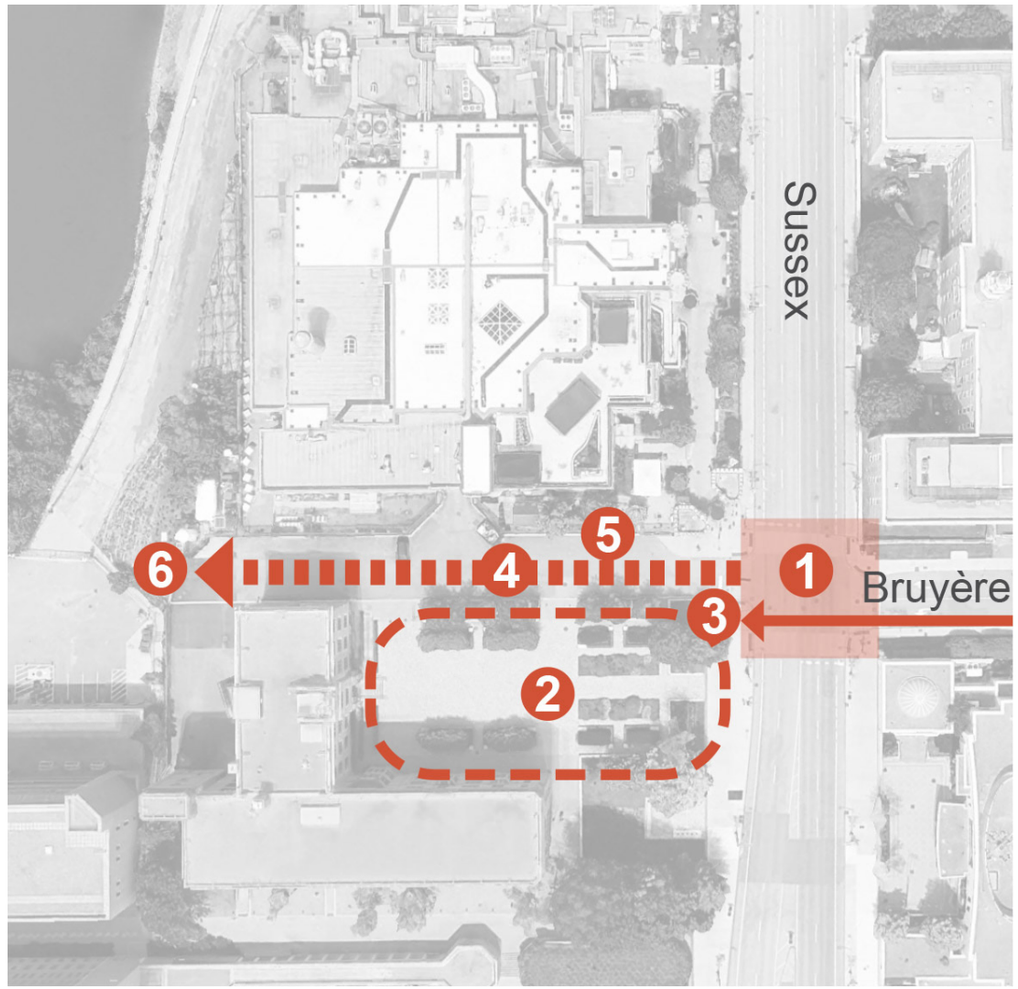


Figure 88: Design elements for the Bruyère Street intersection

6.3.9 Green Island

Green Island, Rideau Falls and the John G. Diefenbaker Building (111 Sussex, a classified federal heritage building) help define the unique character of the northern Segment of Sussex Drive. A Secondary Node at Green Island will help celebrate this place in the Confederation Boulevard streetscape, while enhancing pedestrian connections to these destinations and the broader Rideau River trail network. Design goals for this node include the following:

a. Create a mid-block pedestrian crossing aligned with the existing trail on the south side of the John G. Diefenbaker Building.
b. Provide a pedestrian space as a gateway to Green Island, with seating, lighting, information and wayfinding.
c. Provide enhanced material and furniture treatments at the mid-block crossing, such as trail heads, seating, lighting, unit paving across the right-of-way or within the sidewalks, and potentially gateway or public art features.
d. Provide additional street trees along Confederation Boulevard on Green Island, either within the right-of-way or on adjacent public land.
e. Provide additional trees along the existing trails, to strengthen links to the Rideau and Ottawa rivers.

Design Elements for Green Island

1. Trail network along the Rideau and Ottawa rivers
2. New mid-block crossing
3. New pedestrian space
4. Formal alignment of continuous street trees along Sussex Drive
5. Trees along the trails

Figure 89: Design elements for Green Island

6.3.10 John Street Intersection

John Street is a central street in the New Edinburgh neighbourhood and is a logical axis to make a connection from the neighbourhood to the Ottawa River, with a node at Confederation Boulevard. The node can be a focal point public space for the planned future development along Sussex Drive. The extension of John Street can transform from a vehicular parking and service route to a normalized street framed by buildings, with a generous public realm sidewalk treatment.

Design Elements for the John Street Intersection

1. Enhanced intersection and crossing design emphasizing pedestrian priority
2. Street connection to the Ottawa River, with enhanced paving, landscaping and amenities such as seating, shade, wayfinding and interpretive elements
3. Ensure the landscape improvements along the Ottawa River are visible from Confederation Boulevard and help draw people toward the river
4. Potential future buildingsz

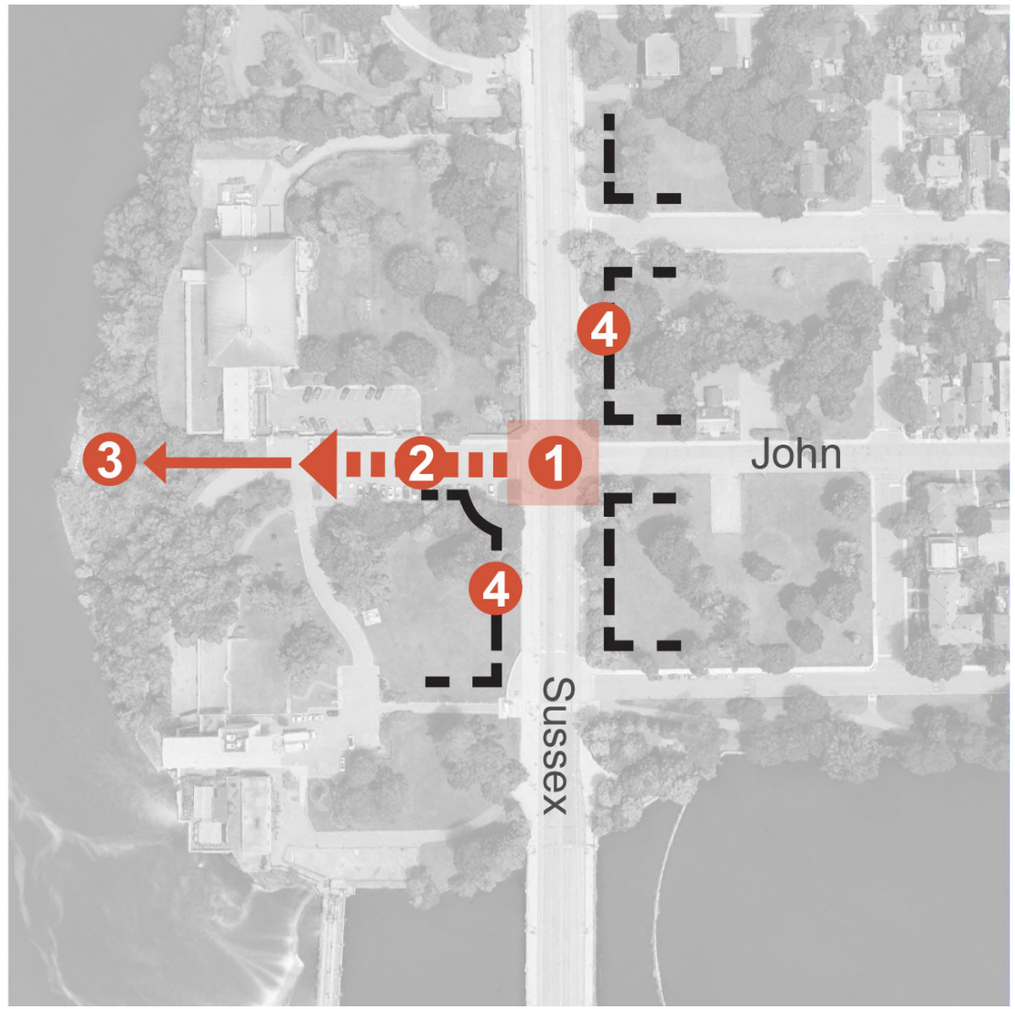


Figure 90: Design elements for the John Street intersection

7 Moving Forward

This chapter makes recommendations to achieve the desired outcomes presented in the Confederation Boulevard Planning and Design Guidelines. It identifies next steps for implementing the guidelines and addresses administrative components such as future plan amendments and plan review.

7.1 Approval

The Confederation Boulevard Planning and Design Guidelines come into effect upon approval by the NCC board of directors. This document is the main planning reference for matters affecting Confederation Boulevard. The approval replaces previous versions of the guidelines (2011, 1985); however, they may be used as reference material.

7.2 Implementation

These guidelines identify planning and design principles and concepts to be applied during future work on the Boulevard. Demonstration plans and cross-sections are included to show how these could be applied for nodes and cross-sections. Further study will be required to develop these demonstrations into functional designs and detailed designs prior to implementation.

Implementation will occur through a mix of dedicated initiatives and opportunistic upgrades. Dedicated initiatives will include shorter-term upgrades to enhance specific segments in a cost-effective manner while awaiting larger capital projects, as well as more comprehensive long-term upgrades that partially or completely reconstruct nodes and segments.

Dedicated initiatives may be funded and delivered by the NCC, by partners or as a joint effort. Dedicated initiatives funded partially or wholly by partners will generally occur when partners' planning objectives align with those of these guidelines, for example, the City of Ottawa's reconstruction of Laurier and Elgin as a protected intersection.

Opportunistic upgrades will occur as partners complete their own initiatives along the Boulevard, for example, a municipality replacing sewers and watermain, or the federal government redeveloping fronting buildings. The NCC should consider collaborating with partners to add Boulevard upgrades to these projects for best cost efficiency.

The NCC will take the lead on developing a *long-term improvement plan* for the Boulevard. The plan should establish priorities for short- and long-term upgrades to various segments and nodes. It should also take into account partners' plans for their own initiatives, identifying potential opportunities for collaboration.

This plan will lay the groundwork for the improvement of the Boulevard over the coming decades and help identify financial requirements for its successful execution.

7.3 Construction Details and Material Selections

Implementation and maintenance of the Boulevard will require standard construction details and standard construction specifications to be developed and regularly updated. Approved product makes and models will also need to be selected for elements such as streetlights and street furniture. These activities will be completed by NCC staff.

7.4 Federal Approvals

The *National Capital Act* mandates the NCC to review and approve changes on NCC land or on any federal land in the National Capital Region, including Confederation Boulevard. To facilitate this responsibility, the NCC has developed a federal approval process to ensure both high-quality planning and design, and the protection of the natural environment and built heritage.

7.4.1 Federal Ownership, National Interest Land Mass, Investment and Land Transactions

Property required to support the planning and development of the Capital should be kept under federal ownership, as it ensures direct management control of land use and design through the federal approvals process under the *National Capital Act*.

All federally owned lands along Confederation Boulevard are designated as National Interest Land Mass (NILM). NILM lands are essential in achieving the NCC's mandate. Lands identified within the NILM are required to support the symbolism, functions, physical structure, and natural and cultural landscape qualities of Canada's Capital. The NCC's intent is to secure key NILM lands not under public ownership through negotiated settlement and collaboration with landowners.

7.4.2 Project Planning and Design Approvals

The revitalization of Confederation Boulevard will be managed by the NCC. This means the NCC will plan and manage its own projects, as well as review and approve partners' projects.

The NCC board of directors is the approval authority for significant projects. When reviewing plans and projects of major significance, the NCC will seek advice from its Advisory Committee on Planning, Design and Realty. This body is made up of eminent planning and design professionals from across the country, and meets on a regular schedule.

The Advisory Committee on Universal Accessibility is mandated to assist the NCC by considering projects undertaken by it that involve a significant universal accessibility component. Major build projects that are or will be accessible to the public are presented to this advisory committee, and the committee's input is used to adjust projects to make them more accessible.

For designs to be approved, they must follow the applicable sections within these planning and design guidelines and must use the construction details and material selections established by the NCC. All designs must support the character of the Boulevard as outlined in this document.

Submissions must clearly indicate any non-conformance with the requirements of this document, as well as any reductions in level of service to specific user groups. An explanation must be provided as to why these are necessary and what efforts have been made to mitigate their impact. For example, a cycling project may reduce pedestrian level of service by introducing additional crossing points, which is mitigated by minimizing their number and carefully detailing their design.

The approval process is not complete until a federal approval document for the project has been received by the proponents. Any subsequent modifications to the approved design(s) must be submitted to the NCC for review and approval prior to implementation.

7.4.3 How to Apply for Approval

Approval of projects along Confederation Boulevard must undergo the federal land use, design and transaction approval process. Project review and approvals is a four-stage process intended to provide NCC staff with more information at each stage. This process must be completed using the online application form.

Further information and guidance on the federal approval process are provided on the NCC's website and in the Proponent's Guide to the NCC's Federal Land Use, Design and Transaction Approval Process.

7.5 Collaboration and Partnerships

Continued collaboration and partnership development are key to successfully achieving this plan and the projects it puts forward. Given the various property owners located along Confederation Boulevard, the NCC will take the lead on coordinating and implementing the work. This will require strong relationships between partners, including the Algonquin Anishinabe community, the City of Ottawa, the Ville de Gatineau, the federal family (notably Public Services and Procurement Canada and Canadian Heritage), the private sector, communities and the various stakeholders. Refer to **Section 8** for further details.

7.6 Plan Monitoring and Measuring Success

Monitoring the guidelines' implementation is essential in measuring its effectiveness. Monitoring can also identify challenges that may arise and that could require adjustments in terms of the plan's objectives, key principles and key planning concepts. NCC staff will be responsible for monitoring and measuring success.

The successful implementation of the planning and design guidelines will be evaluated against the key principles and their associated themes, discussed in **Section 3.2**. Each segment and node will be individually evaluated against these key principles and themes every five years. Challenges to implementation and deficiencies along the Boulevard must be noted, and themes with recurring deficiencies must be prioritized. This information should be used to update the long-term improvement plan for the Boulevard.

7.7 Review and Adjustment

The intended lifespan of these planning and design guidelines is 20 years, until 2045. They must be reviewed regularly over the course of their lifespan to ensure that they continue to respond effectively to evolving needs and conditions. It may be necessary to amend certain provisions due to emerging trends or new information, ensure the conformity of other NCC plans and programs, reflect changes resulting from other detailed plans or form new projects that were not anticipated.

Any amendment must be justified to be in the public interest; must be consistent with the prevailing planning framework, which at the time of approval includes the Plan for Canada's Capital, 2017–2067, and the Core Area Plan; and must conform with the vision and key principles of these planning and design guidelines. Modifications must be approved by the NCC board of directors.

7.8 Strategic Environmental Assessment

The NCC conducts strategic environmental assessments (SEAs) for all its strategic and land use plans to ensure full consideration of environmental factors at all stages of plan development. SEAs get triggered by specific actions. The Confederation Boulevard Planning and Design Guidelines will inform the details of future actions, but do not lead to any specific actions on their own. For example, they set out things like palettes of materials and street furniture to guide future road renewal projects. They do not define or mandate any specific road renewal projects. As such, the guidelines update does not require an SEA.

SEAs would be more appropriately performed for the future actions, such as road reconstruction projects that may come up. Importantly, as these are guidelines as opposed to formal policy, they do not mandate specific inclusions in projects. Future actions can be informed by their SEAs, and the guidelines could be amended, if appropriate, based on SEA results.

8 Stewardship

8.1 Collaboration and Partnerships

8.1.1 Roles and Responsibilities

The Boulevard is owned, operated and maintained by a number of partner agencies, including the NCC. The responsibilities of key agencies are summarized in **Table 2**.

Table 2: Roles and Responsibilities of Partner Agencies

	National Capital Commission (NCC)	City of Ottawa	Ville de Gatineau	Public Services and Procurement Canada (PSPC)	Canadian Heritage (PCH)
Right-of-Way Infrastructure	• Owns and maintains the Portage Bridge and approach roads • Owns the Boulevard's surface finishes and lighting electrical infrastructure • Owns and maintains adjacent public realm and park spaces along the Boulevard	• Owns the right-of-way. on the Ottawa side • Responsible for transportation infrastructure and municipal utilities in Ottawa • Manages third-party utility installations in Ottawa	• Owns the right-of-way on the Gatineau side • Responsible for transportation infrastructure and municipal utilities in Gatineau • Manages third-party utility installations in Gatineau	• Owns and maintains the Alexandra Bridge (future transfer to NCC) • Owns and maintains adjacent federal buildings, parking lots and roads along the Boulevard	
Planning and design	• Develops the Confederation Boulevard guidelines • Sponsors and finances streetscape development • Reviews and approves projects on and along the Boulevard	• Plans land use and transportation in Ottawa	• Plans land use and transportation in Gatineau	• Undertakes the planning and design of projects directly adjacent to and in some cases extending into Confederation Boulevard, in conformity with NCC plans	
Commemoration, interpretation and public art	• Identifies available sites • Supports the development of new monuments • Maintains existing monuments and permanent public artworks located on NCC lands			• Owns the National War Memorial and the Tomb of the Unknown Soldier	• Operates under its "Policy on National Commemorative Monuments on Federal Lands in Canada's Capital Region" (PCH, 2017) which reflects the role of PCH and articulates seven stages of development of a new commemoration, including subject approval with the proponent and the identification of site options and design development in collaboration with the NCC • Leads communications strategies and public programming
Temporary installations	• Sponsors and finances temporary floral and lighting displays				• Manages seasonal banner displays
Special events	• Approves permits on adjacent NCC-owned lands	• Issues vendor and busker permits • Issues event permits	• Issues vendor and busker permits • Issues event permits		• Sponsors and manages special events
Maintenance	• Maintains trees, lighting, upgraded paving treatments and other landscape structures	• Responsible for snow and ice removal • Responsible for temporary patches to hard surfaces • Responsible for repairs to utilitarian paving treatments and municipal utilities	• Responsible for snow and ice removal on the roadway and outer ring • Responsible for temporary patches to hard surfaces • Responsible for repairs to utilitarian paving treatments and municipal utilities	• Maintains numerous elements of built infrastructure including walls, railings, staircases and monuments	
Operations	• Responsible for the enforcement of NCC Traffic and Property Regulations (Conservation Officers)	• Responsible for traffic signals and signage in Ottawa • Responsible for policing and security in Ottawa	• Responsible for traffic signals and signage in Gatineau • Responsible for policing and security in Gatineau		

8.1.2 Coordination Mechanisms

Coordination will be an ongoing process led by NCC staff. It will include correspondence and individual partner meetings organized on an as-needed basis. NCC staff will also host an annual coordination meeting with all partner agencies to share information on successes, challenges and future plans for the Boulevard.

Memorandums of understanding (MOUs) should be updated or negotiated and finalized between partners as appropriate to clearly document the financial and operational responsibilities of each partner.

For the Boulevard to succeed in the long term, all partners must work together on planning its maintenance and improvement. Partner agencies share many of the NCC's goals for the Boulevard. Coordinated and cooperative implementation of initiatives will see these goals attained in the most cost-efficient and least-disruptive way possible.

8.2 Financial Responsibility and Sustainability

8.2.1 Dedicated, Consistent Funding

The NCC and all partner agencies must be committed to maintaining their assets to an appropriate level, as defined in **Section 8.3**. This includes ensuring that they consistently have sufficient funding available to meet their respective commitments. Documentation of responsibilities through MOUs is important to establish these commitments and ensure no gaps are left uncovered.

Partner agencies are expected to continue funding their own initiatives to improve the Boulevard where those improvements align with the agencies' respective goals. The NCC will also fund improvements to implement aspects of the guidelines, and may choose to collaborate with agencies to fund enhancements to their initiatives.

It is understood that each agency has their own multi-year capital improvement plan that must balance lifecycle replacement and improvement needs throughout their jurisdictions. Partner agencies are expected to share details of these plans as relevant to the Boulevard and provide updates on a continuing basis as changes occur. NCC staff will integrate these with the NCC's own initiatives into the long-term improvement plan for the Boulevard and communicate back to partner agencies for information purposes.

8.2.2 Public Art

All large capital projects are expected to integrate public art where feasible. The NCC will explore establishing a public art fund. Projects with smaller scopes or those with limits that do not include appropriate sites for installations would be expected to contribute a small percentage of their construction cost. The fund would be used for temporary and permanent public art installations on the Boulevard.

8.2.3 Lifecycle Management

Proper lifecycle management of Boulevard assets is imperative to achieve a high standard of maintenance. NCC staff will be responsible for preparing a *lifecycle management plan* for the Boulevard. This will be a companion to the long-term improvement plan, with each plan informing the other.

The lifecycle management plan should address the following considerations:

- **Ongoing maintenance expectations**, such as snow clearing, de-icing, litter cleanup, tree pruning and maintenance of planters. These are continuous activities that are typically fulfilled by ongoing service agreements or by partners' own staff.
- **Regular maintenance expectations**, such as spot repairs to degraded paving treatments and replacement of damaged street furniture. These needs are expected to arise often and can be planned based on real-world experience maintaining the Boulevard.
- **Periodic maintenance expectations**, such as replacing aging streetlight luminaires, reapplying coatings to steel elements and resurfacing asphalt. These needs can be projected at fixed intervals based on professional advice, industry best practices and manufacturer recommendations. Performing periodic maintenance at proper intervals is significantly more cost-effective than allowing assets to degrade to the point that they require complete replacement.
- **Capital projects**, which may or may not be driven by lifecycle needs. For example, paving treatments reaching the end of their useful service lives may trigger the need to reconstruct the street. These needs can often be predicted long in advance based on typical service lives and professional advice. In other cases, a capital project may be initiated to implement an improvement such as the STO tramway. In either case, capital projects must be coordinated with periodic maintenance activities to ensure funding is not wasted rehabilitating assets that will be removed.

- **Design predictability:** aside from the duty of care to maintain and respect an established and recognized design language for the various components and elements of Confederation Boulevard furnishings (lighting, urban furniture, etc.), strict adherence to the design family is in no small part intended to ensure design predictability to generate economies of scale, maintain a steady and stable supply and order pipeline of spares and parts, and develop (where possible) a modularity for certain parts or pieces that can be used across components and elements. This is why departures from the established Confederation Boulevard design family will not be contemplated. It is intended for the Confederation Boulevard design family to be permanent and unchanging, and to become a historically consistent look that will traverse the decades as an element of visual permanence, for which parts and components will continue to be produced with the certainty of design permanence.

While NCC staff will be responsible for coordinating the plan, each partner agency is expected to fund and complete the maintenance activities for which they are responsible as per the applicable MOUs.

As new projects are completed, they must feed information back into the lifecycle management plan. This includes regular and periodic maintenance expectations of new elements, as well as projected service lives before the assets will require complete replacement. Projects must also consider the full lifecycle cost of elements they are proposing, balancing initial implementation costs with lifecycle maintenance needs.

Where projects include elements that are either custom-made or risk going out of production within their expected service life, consideration should be given to procuring an appropriate number of spares. Spares are to be delivered to an NCC warehouse for future use during maintenance activities. The quantity of spares should be based on expected replacement requirements and the projected interval to the next opportunity for procurement of additional spares. Partners should coordinate with the NCC management group to confirm these requirements.

This also presents opportunities for cost efficiencies. For example, if the NCC needs to replenish its stock of spare custom elements for maintenance elsewhere on the Boulevard, it could combine its order with that of a partner agency for better bulk buying power, which benefits both the NCC and the partner agency.

The coordinated lifecycle management plan will establish a path forward that optimizes spending through efficient resource allocation and helps establish the budget requirements to achieve the desired high standard of maintenance for the Boulevard.

8.3 High Standard of Maintenance

The Boulevard and its elements are expected to be kept to a high level of maintenance, commensurate with its importance to both cities and its place on the world stage as Canada's Capital.

8.3.1 Street Trees and Landscaping

Street trees require regular maintenance such as pruning and, depending on the planting detail, watering. Dying and dead street trees must be replaced promptly to avoid degradation to the character of the affected segment or node.

Planting areas require ongoing maintenance such as replanting of annuals, pruning, fertilization, litter removal and watering. These activities also apply to future bioswales within the Boulevard, which should be maintained to the same high standard as any other planting area.

8.3.2 Winter Maintenance

Winter maintenance standards are largely set by the municipalities. For areas that are maintained by NCC contractors, contracts should be set to match the standards of the municipality in which the area is located.

While it is acceptable to remove a portion of Boulevard elements in the winter months, a curated winter environment must remain to achieve vibrancy during all seasons as part of the "foster a vibrant public space" key principle. Elements that could be considered for seasonal removal include planters, benches and warming area devices. The provision of benches at regular intervals through all four seasons is also essential to provide universal accessibility as part of the "promote inclusivity" key principle. Refer to **Sections 3.2.2, 3.2.3** and **4.1.1** for further details.

The streetscape must be designed to accommodate winter maintenance. This includes allowing space for snow storage, keeping salt laden runoff out of sensitive planting areas and tactically placing street furniture outside the path of snow clearing and snow removal equipment. Refer to **Section 4.2** for further details on designing for winter maintenance.

Where practical, elements should be designed to be inherently visible to plow drivers and resilient to plow strikes. Designers must imagine the streetscape from the perspective of a plow operator driving at night during intense snowfall with a blanket of fresh snow obscuring the surface. Examples of visible and resilient elements include benches with granite bases and tree planting areas with robust raised curbs. Elements with reduced visibility, such as flush tree grates, or those with reduced resiliency, such as metal benches, must be staked to mitigate the risk of plow damage. Designs should take into account staking requirements, including insets into hard surfaces for the insertion of stakes.

8.3.3 Hard Surfaces

Paving treatments along the Boulevard serve both aesthetic and functional purposes. Degradation to paving treatments, such as potholes in the road and heaving sidewalk pavers, pose immediate safety and usability risks to the travelling public. It is essential to promptly repair degraded elements to ensure the Boulevard's continued safety and functionality. Temporary patching using asphalt or other functional materials is acceptable only as an interim repair.

All temporary patches must be reported to NCC staff, who will coordinate permanent repairs using proper materials. Annual repairs should be planned every spring after freeze thaw cycles have ended for the season, and implemented in June with the goal of restoring the Boulevard before Canada Day.

8.3.4 Continuous Improvement

When maintenance challenges are encountered, feedback must be given to NCC staff so that they can be addressed with revised construction details for use in future projects. In some cases, retrofits may be warranted to address maintenance challenges where this improves overall lifecycle cost-efficiency. Improvements to maintenance practices should similarly be shared so that all partners can benefit from the knowledge.

Innovative approaches should be explored with partners to further the goals of the Boulevard such as sustainability and efficient resource allocation. Such initiatives could include alternative de-icing compounds that are less harmful to Boulevard elements and have less environmental impact, or even heating the highest traffic pedestrian areas using renewable energy sources to eliminate the need for snow clearing and de-icing.

NCC staff are responsible for continuously monitoring the effectiveness of the maintenance program and coordinating remedial steps if issues are identified. This will be informed by feedback from partner agencies, the NCC's own observations and the results of periodic evaluations as described in **Section 7.6**.

8.4 Activities on the Boulevard

Confederation Boulevard is a public place that is brought to life by the diversity of activities and events that occur along its length and at nodes throughout the year. These activities are in direct support of the "foster a vibrant public space" key principle.

Ensuring public safety and security is paramount throughout all activities, planned and unplanned. The Boulevard's image and integrity must also be maintained.

8.4.1 Programming and Events

The NCC and Canadian Heritage promote and manage a series of significant public events on the Boulevard that celebrate landmark dates, reflect the change of seasons and animate the Capital Core. These include Canada Day, Winterlude, and the Sound and Light Show.

Municipal partners must consult the NCC before issuing municipal event permits for the Boulevard to ensure event selection and timing are appropriate. Events of national importance must be prioritized.

8.4.2 Strikes and Protests

Strikes, protests and other unofficial events regularly occur on Parliament Hill and at other key symbolic sites in the National Capital. Some of these events involve processions along Confederation Boulevard. Peaceful protests are an important expression of democracy and the freedoms that are enshrined in the Canadian constitution.

The security and safety of everyone must be ensured during these events. This includes protesters, the general public and employees who work at adjacent buildings. Vandalism and damage to the Boulevard and its assets will not be tolerated. Prompt action in coordination with local law enforcement is required when these events become unlawful or otherwise put anyone's safety or well-being at risk.

8.4.3 Buskers and Vendors

The City of Ottawa and Ville de Gatineau are responsible for issuing permits to vendors and performers. These activities should be supported as they help animate the Boulevard and provide basic amenities to passersby.

Municipal partners must consult the NCC before issuing permits for the Boulevard to ensure they are appropriate. Events of national importance must be prioritized and taken into account.

These activities must comply with the following guidelines to ensure they do not detract from the Boulevard's image:

- Must be limited to appropriate areas only, which may vary depending on the nature of the vendor or busker.
- Pop-up installations must have an elevated design standard.
- They must not block the sidewalk, cycle track or transit facilities.
- They must not block permanent installations such as memorials and public art.

Figure 91: Example of a pop-up food vendor with elevated design standards

8.4.4 Homelessness

Homelessness affects many people across the Ottawa–Gatineau area. Its effects are visible downtown, including along Confederation Boulevard. A balanced approach should be taken to address public safety concerns and maintain the image and dignity of the Boulevard, collaborating with law enforcement to uphold law and order while respecting the dignity of unsheltered people.

8.4.5 Advertising and Sponsorship

The dignity and character of Confederation Boulevard must be maintained given its importance to the image of the National Capital and its function as the ceremonial route. The NCC Sponsorship Policy limits corporate sponsorship within the National Capital to temporary events and programs.

Permanent advertising installations are prohibited on the Boulevard, with limited exceptions only where explicitly approved by the NCC at its sole discretion. As one example, advertising panels could potentially be approved as part of a premium bus shelter design that otherwise meets the Boulevard's design requirements.

For installations with permanent advertising content, the content itself is subject to NCC review. For installations with advertising content that changes over time, the responsible agency's guidelines for acceptable advertising content are subject to NCC review and will be taken into account when considering approval requests. Subsequent changes to guidelines affecting ads on the Boulevard must be submitted to the NCC for review, and the NCC reserves the right to revoke approval if changes to guidelines are incompatible with the Boulevard.

Digital advertising installations and similar large-format dynamic screens can be even more distracting than conventional static advertising panels. They are similarly prohibited on the Boulevard. While the NCC may approve very limited exceptions, design standards and restrictions on the content displayed will be very strict.

Postering of temporary ads and posters on the Boulevard is accommodated by the pole collars provided at limited intersections for this purpose. The provision of dedicated collars for postering is intended to help limit postering on unauthorized surfaces. Appropriate locations for pole collars will be decided collaboratively by staff of the NCC and the relevant municipality. Postering elsewhere is prohibited under municipal by-law and should be discouraged through rapid removal and immediate clean-up.

Transit information panels such as network maps and dynamic arrival time displays are not considered advertising installations unless they combine transit information with paid third-party content. Transit information panels are permitted on the Boulevard subject to the same elevated design standards and approval requirements as other elements on the Boulevard.

8.4.6 Construction

Construction activities on the Boulevard must be carefully planned to ensure that impacts are properly mitigated. Disruptions to public access and the overall streetscape experience should be minimized. Detour routes for pedestrians, cyclists and transit must be high quality, safe and efficient. Accessibility requirements are equally important during construction as they are at any other time.

Hoarding for construction activities that exceed one construction season must be set up to an elevated standard to maintain the aesthetic of the Boulevard throughout the construction. For projects that do not change the Boulevard's design (e.g. underground utility installation), reinstatement must match the design of existing conditions and be constructed to the quality of the original design.

9 Appendices

9.1 Acknowledgements

The Confederation Boulevard Planning and Design Guidelines are the result of two years of research, analysis, engagement and collaboration. The NCC would like to thank the project team, other NCC staff, consultant team, and external partners for their efforts and contributions to the document.

Acknowledgements

Project Directors

Antoine Normandin, Director, Transportation Planning

Martin Barakengera, Director, Planning and Design

Project Team

Colin Simpson, Chief, Transportation Planning

Andrew Sacret, Chief, Planning and Design

Cécile Lecoq, Senior Planner, Transportation (Project Manager)

Patrick Bunting, Senior Planner, Urban Design

Minh Ngoc Dao, Senior Planner, Planning and Design

Jessie Maisonneuve, Senior Graphic Designer

Consultants

Parsons

Ron Clarke, Vice President, Ottawa (Project Manager)

Chris Redden, Principal Engineer, Complete Streets and Active Transportation (Transportation Planning and Design Lead)

Mike Carrier, Urban Planner (Urban Planning)

Jaedon McColl, Active Transportation EIT (Accessibility/Universal Design)

The Planning Partnership

David Leinster, Landscape Architect, Planner, Principal (Public Realm Project Lead)

Jennifer Williamson, Landscape Architect, Associate (Project Manager)

Malin Christensson, Landscape Designer, Associate (Public Realm Design)

Mike Hudson, Senior Urban Designer (Public Realm Design Lead)

NCC Advisory Team/Contributors

Capital Planning

Hadiya Al-Idrissi

Kate-Issima Francin

Habash Gandhi

Pascale Guindon

Ted Horton

Homa Jalil Safarian

Christopher Meek

Geneviève Mercier

François Pirart

Heather Thomson

Capital Stewardship

Walid Chaarani

Bruce Devine

Tessa Fortier

Ian Grabina

Marc-Antoine Poitras

Stéphane Wojciechowski

Design and Construction

Kira Burger

Carole Crossan

Louis-Philippe Desmarais

Jennifer Naegelkraemer

Tracy Pritchard

Patrick Sayer

Eric Tyler

Public, Legal and Corporate Affairs

Émilie Girard-Ruel

Ryan Kleinau

Cédric Williams

Real Estate and Development

Laura Mueller

External Partners

City of Ottawa

Ville de Gatineau

Société de transport de l'Outaouais (STO)
Ministère des Transports et de la Mobilité durable (MTMD)

Ministry of Transportation of Ontario (MTO)

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Parliamentary Partners (House of Commons, Senate, Library of Parliament, Parliamentary Protective Service)

Canadian Heritage

Parks Canada

NCC Executive Management Committee

Tobi Nussbaum, Chief Executive Officer

Alain Miguelez, Vice President, Capital Planning

Tania Kingsberry, Vice President, Corporate Services and Chief Financial Officer

Nancy Martel, Vice President, Human Resources

Anne Ménard, Vice President, Capital Stewardship

Véronique de Passillé, Vice President, Public, Legal and Corporate Affairs

Harminder Kaur, Vice President, Design and Construction

Bill Leonard, Vice President, Real Estate and Development

Luc Fournier, Chief of Staff and Commission Secretary

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Advisory Committee on Universal Accessibility

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The Planning Partnership

- All cross-sections, concept sketches and key plans
- Figures 13, 16-22, 26 (except top left), 28 (except top right), 29, 30 (bottom), 31, 32, 32, 33 (middle), 34, 35, 36 (top and bottom), 39-43, 49, 52-60, 62-90

Parsons

- Figures 8, 38 and 47

Google Maps

- Figures 24, 25, 26 (top left), 27, 33 (bottom).

Others

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